

MANUFACTURERS' RECORD.

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BALTIMORE, MARCH 1, 1895.

THE recent meeting of delegations from different Texas counties at Houston in the interest of good roads resulted in the formation of a State league for good roads. The MANUFACTURERS' RECORD trusts that every Southern State will soon have a similar organization, which will do much to educate the people to the benefit of improved highways.

It is announced that Governor MacCorkle, of West Virginia, recognizing the great value that the Nicaragua Canal would be to the business interests of his State, proposes to visit Wheeling in order to present to the manufacturers of that city the importance of the canal. It would be a wise movement if every Southern governor would press upon the people of the South the necessity of the early construction of this canal.

THE Chicago Inter-Ocean says:

President Ingalls, of the Big Four, has ordered heads of departments and agents to notify Chief Engineer Kittredge to have switch tracks built to any local industry of sufficient importance to demand it. He proposes to push to the limit the policy of fostering local industries.

If all our railroads had pursued the policy marked out, according to this statement, by President Ingalls, there would have been fewer bankruptcies, and the railroad situation of the country would be in a more favorable condition than it is.

WE commend to the attention of every man having at heart the interest of the South and of the rising generation the article in this week's issue by Mr. Thos. P. Grasty, pointing out the need of technical education at the South. Mr. Grasty emphasizes the necessity of the young men of the South being fitted to hold their own in competition with the world in the new era of industrial growth which must for years to come claim the attention of the South. Unless the boys and young men of the South are given the opportunity for acquiring the technical training needed in order to fit them for this work they will lose this opportunity, and the skilled labor needed will have to be drawn from elsewhere.

How Northern Millmen Will Go South.

About a dozen cities and towns in the South have collected \$400 or \$500 apiece to pay the expense of sending delegations to New England "to get cotton mills." Perhaps fifty other places which did not send delegations used the mails liberally, and sent letters to New England manufacturers, telling them of the "unsurpassed advantages" this or that city offered as a site for manufacturing. A railroad company, in order to test the feeling on the subject, sent two representatives into the textile-manufacturing district of the North, and the MANUFACTURERS' RECORD learns on the best authority that these gentlemen could not get one of the mill-owners to state positively that he would invest in the South. As to the delegations, so far as heard from, they have returned with the report that while they were politely received, they could not make any arrangements to establish any of these factories in their respective towns.

The result has been a disappointment generally, but what else could be expected? No manufacturer who has the average amount of business ability is going to invest \$100,000 or \$500,000 in a locality he, perhaps, has never seen, simply on representations of strangers, nor will he commit himself as to the amount of his proposed investment, or even of any intention to invest, until he has his plans laid. If he should publicly say he intended to locate South, it would seriously interfere with many of his plans, and subject him to much bother before he was ready to finally act, and possibly he would have to pay more for not "keeping still about it."

We wish to impress this fact upon the readers of the MANUFACTURERS' RECORD: Not a mill will be built by Northern capital in any Southern State until the men who propose building it have thoroughly examined the available sites throughout this section, either personally or through competent representatives. If they intend investing in the South, they will select the very best locality, considering power, transportation facilities, cheapness of property, nearness to raw material, chances of obtaining operatives, etc. Their business judgment tells them that it is better to spend, perhaps, several months in examining all the properties which may come to their attention, and spend, perhaps, \$1000 or \$2000 in doing so, than to select one of a half-dozen places, and find too late that they have overlooked a better base for manufacturing.

Yes, the great mill-owners in the North are looking southward. They are forced to from business policy. The MANUFACTURERS' RECORD has information showing that at least nine big corporations in New England have begun

to make preparations to get ready to look for factory sites in the cotton States. It is estimated that these companies will eventually invest from \$7,000,000 to \$7,500,000 in the South. They will visit every point which is made known to them, and it is for this reason that the MANUFACTURERS' RECORD is preparing its special edition, which is to be placed in the hands of every mill director in New England. While a dozen or more big New England companies will in time build mills in the South, hundreds and even thousands of New England moneyed men will invest in Southern mills.

All owners of power sites or factory sites, and all communities which desire to reach those people, should see that they are represented in this edition.

The views expressed above are emphasized by the Boston Advertiser, which, in commenting on the visit of Southern town delegates to New England cotton mills, says:

There is one thing which these Southern gentlemen, bent on booming their special localities, are finding out on these Northern trips of theirs—that our mill people are not influenced by the sending of such delegations in their choice of locations for their mills.

When they are convinced that it is for their interest to establish auxiliary plants in another section, as some of them have been, they do not proclaim the fact upon the housetops, but in a quiet way investigate personally the different localities, and when they find one that meets a reasonable number of the requirements, they decide upon it as the spot for them to settle on.

This is the way it has been done in the past, and this is the way it has been done very recently, and thus it will continue to be done until all the New England cotton manufacturers who desire Southern plants have located in the section, or until sites are so scarce there as to require the calling in of an expert to guide the later comers to the most available ones.

THE New Orleans Times-Democrat, in an interview with Rear-Admiral Ammen in regard to the Nicaragua Canal, quotes him as saying:

If you will look up the Congressional Record of January 25 you will find a letter from Mr. C. P. Treat, who is a contractor, dated January 15, in which he states that he had offered to construct nearly one half the canal, etc."

The Times-Democrat is slightly wrong. The Congressional Record was never enterprising enough to have a publication of this kind. The MANUFACTURERS' RECORD published such a letter, and Rear-Admiral Ammen doubtless so stated, as he had a copy of this paper.

A LETTER in the News and Courier, of Charleston, says:

Some time ago a South Carolina merchant ordered a lot of canned goods from New York, and on their arrival, lo! and behold, they proved to be goods packed by canning factories in his own town. They had been shipped to New York and then freighted back to the same town where manufactured. These goods paid two freights, and could have been bought cheaper from the factory at first.

This is only one of many illustrations that could be given of the mistake that the South is making in not saving the cost of transportation both ways. While working for cotton mills look after the small things.

Heads I Win; Tails You Lose.

The cotton-mill discussion now going on in New England presents a very interesting situation. The cotton manufacturers, in order to secure legislation favorable to their interests and to prevent the passage of labor laws which they regard as inimical, undertook some months ago to make a great hurrah about the South capturing the New England cotton trade. They did not quite believe the thing themselves, but in order to strengthen what they might say, a number of them went South for the purpose of gathering information and coming home and making a great hurrah, thinking that this would prevent any fresh labor legislation. Fortunately for the South, the men who went there expecting simply to use the opportunity as an excuse for arguments before the New England legislatures, came back entirely convinced that there was a great deal more strength in the Southern situation than they had supposed. Some of them were so thoroughly converted that they have definitely decided to build large mills in the South, and two companies have already made all arrangements for erecting large mills, while a number of others are planning to do the same. On the other hand, the labor agitators are claiming before the State legislatures in New England that all the talk of New England cotton manufacturers is simply a bluff, and that it is put out wholly for political effect. It does not make much difference to the South which side wins, so far as labor legislation is concerned, in New England. If the cotton manufacturers win by a persistent cry of Southern advantages and of the destruction of their business by Southern competition, they will simply have converted their own people to a realization of the fact that New England's cotton-manufacturing supremacy is based on so slim a foundation that nothing can save it, and the only hope of an extension of its life is the most favorable labor laws. Under these circumstances the wise investor will immediately conclude that the South must be the best place for him to put his money in cotton mills. On the other hand, if labor agitators win, and still more restrictions are placed upon the employment of labor in cotton mills, the manufacturers themselves will be forced by their own reasoning to turn all of their attention to the South. It is simply another case, so far as the South is concerned, of "heads I win; tails you lose."

ONE of the most important matters relating to the prosperity of Southern cotton interests is some improved system of baling and handling cotton. Ever since cotton has been produced in the South it has been badly baled and handled. The aggregate losses it would be difficult to estimate. As the Besonette baling system gives promise of

becoming a very important factor in changing the entire baling and handling methods of the South, the MANUFACTURERS' RECORD devotes considerable space to it today. It is gratifying to know that such a prominent cotton man as Mr. Jerome Hill, of St. Louis, after a thorough investigation of the system, has decided to take the entire management of the company east of the Mississippi river. This means that this system is going to be pressed upon the attention of the country, and it doubtless means its general acceptance; at least, that is a fair inference to draw.

Harper's Magazine on the South.

The last issue of Harper's Magazine contains the second of its series of Southern articles by Mr. Julian Ralph, this being entitled "The Industrial Region of Northern Alabama, Tennessee and Georgia." It is to be regretted that Mr. Ralph has tried to handle this important matter in a gossip newspaper style, and has failed to do justice to the situation or credit to Harper's. Unfortunately he has also managed to secure a great deal of misinformation. He devotes considerable space to the "Chattanooga iron district," giving to it the credit of taking in a large part of the Alabama iron region. In fact, he stretches the Chattanooga district to a region embracing a circle of 150 miles, and thus manages to even include the Birmingham region as a satellite of Chattanooga, and claims that "Tennessee has more resources that can be utilized in manufactures than any other one of the Southern States," and much to the amusement of those who know anything about iron pipe-making, says that Chattanooga has the largest iron-pipe works in the South. This will doubtless be news to Alabama iron-pipe makers, as well as to the Chattanooga people themselves. His discussion of iron-making and other matters is of the same general character.

But the most astonishing thing about the whole article is a column or more of pure "write-up" stuff of an almost unheard-of town that has no more chance of being a second Birmingham, to which its advantages are likened, than a thousand and one other places in the South. How this managed to miss the editor's blue pencil is a mystery. The tenor of the article is intended to be favorable to the South, but such superficial work as this indicates the fact that Mr. Ralph was not acquainted with the subject he was trying to handle, and failed to make more than a very casual study of it. Hence, instead of an article presenting a correct outline of the industrial conditions of the section treated, we have one that is of no interest to anyone who has the slightest acquaintance with the South, and of no credit to Harper's. With a vast wealth of material from which to draw for such an article as this, the writer has utterly failed to do justice to the subject.

THE Senate has wisely voted in favor of an appropriation, amounting to about \$5,500,000, to pay bounties on last year's production of sugar. This is the least in honesty that could be done. The government has broken what ought to have been a binding contract, without regard to whether it was a wise contract

or not. The United States government had no more right, in a moral sense, even if there were any technical legal escape, for breaking its contract with the sugar-planters than it would have for breaking any contract for the sale of government bonds. Having broken this contract, however, the least it can offer to make some little amend is the passage of this bill appropriating money for the payment of the bounty on last year's crop, raised before the bounty bill was repealed. It is to be hoped that the Senate will insist upon this appropriation, and thus secure its passage by the House.

Saying One Thing, Doing the Other.

"Two farmers in Wilkes county, a few days ago," says a Georgia paper, "were discussing the cotton question, when one said: 'I have about concluded not to plant a seed of cotton this year.' The other said: 'Well, I am glad to hear that; I hear so many men say the same thing that I am going to plant every acre of my land in cotton and get ten cents a pound for it next fall.' The first man then said: 'Well, I believe I will, too. This will be the year to make big money on cotton.' This is an actual occurrence. The two men are well-known citizens of Wilkes county."

This is an argument which will always stand in the way of reducing cotton acreage by any such means as combining to plant less cotton. Were the great majority of Southern planters ready to stand together in carrying out these sentiments, no doubt the crop would be greatly reduced, but the area in the cotton States is too great and the number of cotton planters too large to make cotton-crop-reducing associations of any permanent benefit. The present agitation may accomplish something this year, but the best possible work is to induce Southern farmers to learn by experience that they can make more money raising foodstuffs than in producing cotton.

A FEW months ago the MANUFACTURERS' RECORD suggested to the Withington & Cooley Manufacturing Co., of Jackson, Mich., that it would do well to consider the question of establishing a factory in the South for the manufacture of farm and garden tools. This company has now purchased for \$15,000 a large factory at Nashville, Tenn. The Nashville establishment will be under the management of Mr. Thomas H. Russell, treasurer of the company. It will employ about seventy-five hands at the start. The Withington & Cooley Company has a paid-up capital of \$200,000, and is reported by the commercial agencies with the highest rating. It is a very large manufacturer of hoes, rakes and other farming tools. The movement South of this concern is but another illustration of the southward trend of industrial interests.

THE modern sewerage, lighting and water-works systems in some of the Southern cities are attracting so much attention in the North that parties of city officials frequently make tours of the South to examine these improvements. A delegation from Dayton, Ohio, has recently been inspecting Atlanta's sewer system with the view of adopting it in that city.

Mexico as a Market for Southern Goods.

The importance of extending the trade of the South into Mexico and opening up a market for Southern manufactured goods has been persistently urged by the MANUFACTURERS' RECORD. In order to bring this matter directly to the attention of the South the MANUFACTURERS' RECORD will publish a series of letters dealing with the industrial progress of Mexico, and showing the magnitude of the market that can be created in that country for Southern manufactured goods. There are many lines of machinery and of other manufactured products made in the South which ought to find an extensive market in Mexico. It is especially interesting to note, as shown by our first letter published today, that the man who is responsible for much of the remarkable railroad and industrial progress of Mexico during the last few years is a Southerner. This is only another illustration of the fact that the South produces men of broad and comprehensive business ability and untiring energy.

Our correspondent in a personal letter says: "All the machinery and agricultural implements to set in motion the industrial and agricultural development covered in my first letter were purchased north of the Ohio river, with the exception of some from St. Louis and Louisville. The bulk of the coal and coke for the smelters and railroads and machine shops came from Alabama. My aim in this letter has been to show the readers of the MANUFACTURERS' RECORD what a large field there is here for them to operate in."

THE Baltimore MANUFACTURERS' RECORD is evidently trying to boom South Pittsburg, Tenn. It claims that iron can be made there at \$5 a ton, and by implication discredits the Birmingham district.—Birmingham Age-Herald.

That is a willful misstatement. The MANUFACTURERS' RECORD has not even mentioned South Pittsburg or that section. It has not even claimed that iron could be made at any point at \$5 a ton. It published a letter from a responsible New York man whose name was signed to it, claiming that iron could be made at a point in Campbell county, Tenn., at \$5 a ton; but Campbell county is a long distance from South Pittsburg. But, editorially, the MANUFACTURERS' RECORD questioned the correctness of this claim, and stated that it would prefer to see a furnace in operation there before accepting it. Does the Age-Herald find such false statements profitable? Moreover, suppose iron could be made in Tennessee at \$5 a ton. Must the MANUFACTURERS' RECORD fail to publish it because its publication would "discredit Birmingham." Though it has done more for Birmingham than any other paper in the country, the MANUFACTURERS' RECORD is a Southern paper, not a Birmingham paper.

NEW ENGLAND manufacturers will build mills in the South which will be stocked with machinery made in New England, and the profits will come to New England. So why should there be alarm here? The more mills in the South the better will it be for New England, because it will spur our enterprise to still greater endeavor. There is no graveyard whistle in New England—not a bit of it; it is the cheeriest and the liveliest whistle that ever was blown.—Lowell (Mass.) Citizen.

The Citizen sees a little of a great truth. The MANUFACTURERS' RECORD has for years insisted that the South is

the only field in the world in which the energy and the capital of New England can find a place for operation. The development of the South is just as essential to the prosperity of New England as it is to the prosperity of the South. New England got enormously rich in opening up the Western empire and in furnishing the capital and the machinery for its development. That field has been fully covered for some years to come. The only hope for New England is to turn its capital and its enterprise into the utilization of the resources of the South. This means prosperity for the South and prosperity for New England, but it, of course, means at the same time some material changes in the business conditions of New England. These will adjust themselves. The South has no fight against New England. They can become close allies in the development of the richest region on earth, and both grow rich in doing it, but this will bring about a readjustment of many interests, which may for the time indicate a loss to New England. This will all be true if New England is wise enough to avail itself of the opportunity. If it is not wise enough for this, then the South will grow rich at the expense of New England.

A Newspaper Educator.

The attitude pursued by some of the daily papers of the South in devoting their columns to articles which will aid in the progress of this section as a whole is heartily to be commended. One journal which comes under this head is the Charleston News and Courier. A decided change for the better has been made in its editorial policy within the last year, and instead of devoting itself to matters of a political or purely local character, it is taking up subjects in which everyone who has the welfare of the South at heart is interested. It is creating discussions which are doing much to enlighten its readers on agricultural, manufacturing and other topics, and has an excellent plan of following up a subject until its readers are thoroughly posted. Among other matters taken up by the News and Courier is the value of starch manufacturing in the State, and the opportunities which await anyone willing to begin it. Diversified farming has claimed much of its attention, and prizes offered by it to the farmers raising the two fattest hogs in the State have stimulated the "hog-and-hominy" industry in a way that will result in Carolina farmers raising more meat at home, and being more independent in this respect than they ever have been since 1860. It has taken up the question of good water as a preventative of malaria, started by Mr. Jas. R. Randall in the *Southern States* magazine, and created a very interesting discussion, which will give its readers an idea of the true causes of malaria and how they can be removed.

The MANUFACTURERS' RECORD takes pleasure in noting the good work of the News and Courier, and trusts that its example will be followed by other Southern journals.

H. E. PENROSE and others, it is stated, have formed a company which will erect a factory for making clay targets. The cost of the plant, which will be located in the suburbs of Baltimore, will be \$100,000.

SOUTHERN ENERGY AND NORTHERN CAPITAL

Linked in the Development of Mexico.

A Great Opportunity for Southern Manufacturers to Push for Trade.

[Special Correspondent, MANUFACTURERS' RECORD.]

MONTEREY, MEXICO, February 9.

Monterey, the capital of the State of Nuevo Leon, is the most progressive city in the republic. It is the Pittsburg of Mexico. There have been more substantial improvements made here since ground was broken in January, 1889, for the building of the Monterey & Mexican Gulf Railroad than there had been in the past two centuries. Monterey is now connected with the United States and the interior by two trunk railroads, and before the close of this century it will be connected with its sister republic by two or more additional railroads. In this connection, and for the information of the manufacturers of machinery and supplies of the South, I will enumerate some of the industries that have been established in this city and along the line of the Monterey & Mexican Gulf Railroad since January, 1889. The summary will show the magnitude of the demand here for machinery, and the importance to the South of cultivating this field.

There have been erected since 1889 three smelters that represent an outlay of over \$5,000,000 in gold (all the following values being in gold); a foundry and machine shop, \$250,000; a brewery, \$300,000; a wire-nail factory, \$125,000; a furniture factory, \$300,000; a flour mill, \$125,000; four street-car lines, \$700,000; five electric-light plants, \$825,000; three soap factories, \$175,000; a cartridge factory, \$130,000; a marble hotel at the Tapo Chico Hot Springs; the opening and developing of the marble quarries at Tapo Chico, \$100,000; the opening and developing of the Tapo Chico Hot Springs, \$175,000; the establishment of a brick-yard (it is second to none in the United States), \$175,000; the erection of a State penitentiary, \$250,000; the erection of eight schoolhouses, \$75,000; the erection of fountains and statuary in the city parks, \$75,000; the erection of depot, warehouses, machine shops and roundhouse for the Monterey & Mexican Gulf Railroad, \$340,000; the erection and improvement on churches, \$130,000; the establishment of four dairies, \$50,000; the establishment of a cold-storage and two ice factories, \$75,000; bottling works, \$10,000; two saw mills, sash, door and blind factories, \$100,000; the building of government barracks, \$125,000; the erection of hundreds of stores and residences throughout the city which cost in the aggregate hundreds of thousands of dollars; the establishment of two banks with a cash capital of \$2,000,000; the building of the Monterey Mineral Belt Railroad, \$250,000; the establishment of small factories throughout the city which represent several hundreds of thousands of dollars; the erection of modern-style stores and residences which cost some hundreds of thousands more; the opening of silver, lead, copper, gold, iron and coal mines in the states of Nuevo Leon, Tamantipas, Coahuila, Durango, Zacatecas and San Luis Potosi, which represent millions of dollars, and extensive developing of the agricultural resources of the states of Nuevo Leon and Tamantipas.

I know these are big figures, but Monterey deals in big figures. It has the railroads, the smelters, the factories and the mines to show for them. Its citizens have caught on to the spirit of the age, so that it is today the foremost manufacturing city in the republic.

But these railroads, smelters and factories did not grow nor spring up of their own accord. They were built. It required

capital and machinery to do it. Neither the money nor the machinery was here to do the work. They had to be brought here; and with one exception—St. Louis, Mo.—all the money and the machinery to build the roads, the smelters and the factories, and to operate the mines, were brought from north of the Ohio river.

In order to put the above machinery in motion and operate it successfully it required a man of more than ordinary executive and financial ability. The question was, where could such a man be found? As in war and in great political disturbances, the times produced the man. That man was Joseph A. Robertson, Esq., a native of Tennessee. He was the principal promoter of the Monterey & Mexican Gulf Railroad, and when the company was organized he was elected its general manager, which office he has since occupied.

It was through his influence that the Monterey & Mexican Gulf Railway was built from Treunio to Tampico, 387 miles, in the remarkable short time of two years and nine months. It was through his influence that the three smelters, the four street-car lines, the machine shops and foundry and the general industrial advancement were brought about.

But in order that these enterprises, the creatures of his brain, should succeed, as they have done, the co-operation of those in authority was an essential feature. Fortunately, he had the aid of the chief executive of the state of Nuevo Leon, General Bernardo Reyes, who is a man of energy, push and progressive ideas, backed by indomitable will-power, and with his co-operation success has been won.

As a railroad man and a financier Mr. Robertson has few equals. He is familiar with all the details of the business, and there is nothing too small to escape his attention. He is popular with the employees of the road, the miners, the foreigners and the Mexicans. All have the utmost confidence in his ability and integrity, and will back him up in every enterprise that he will inaugurate.

Some days ago he left for St. Louis and the East on business in connection with his railroads and other enterprises in Mexico. His principal mission this time is to establish a line of steamships to ply between Tampico and New Orleans, to run in connection with the river boats on the Mississippi river and its tributaries, and in connection with the Louisville & Nashville Railway and the Illinois Central Railroad. This would help to open this great field to the coal operators and the general manufacturers of the South. I have every reason to believe that before Mr. Robertson returns he will succeed in establishing this line of steamers, thus giving the Southern manufacturers the advantage of the short haul.

All the railroad cars, engines, machinery and agricultural implements were, with two exceptions (St. Louis and Louisville, Ky.) manufactured north of the Ohio river. If the manufacturers of the South would look to their interest they would send agents into this country and try and control some of this trade. The Mexicans are today the best customers in the world. They pay cash for everything that they purchase. They have no failures in this country.

In my future letters I will point out what Mexico wants, and what she produces and gives in exchange for American goods. E.

NORTH TEXAS is planting the largest crop of oats ever known in the history of the State. The January and February snows and ice left the ground in a pulverized condition, and since the sun has come out thousands of plows have been put to work preparing the land for oats. On account of the long dry spell in the fall and early winter the wheat crop suffered.

The Need of Technical Education at the South

By Thomas P. Grafty.

The enormous resources of the South, which all the world is beginning to talk about and think about, either mean that the South within a generation is destined to become the workshop of the world, or they signify nothing at all. And this view of the outlook suggests this question: While we are heralding the variety and immensity of our resources and imploring outside capital to come and develop them, may we not be throwing away "the children's bread" by failing to fit the youth of the South for the very best kind of participation in the advantages that will flow from the location of the world's workshop in their midst? And what is the best kind of participation in any enterprise, at least for those who have but little money, if it is not to hold the best paid places on industry's lavish pay-rolls?

What is the South doing to fit her sons to get their names high up on this inevitable roll of honor—and it is a matter for congratulation that Southern people are already beginning to honor skilled labor and to seek it for their children—what, I ask, is being done to get, next to ownership, the best possible participation in the profits of this future workshop of the world, that any man not totally blind may see slowly but surely moving in our direction?

No section of the Union has so many collegiate institutions, in proportion to wealth and population, as the South Atlantic States. I find in the New York World's Almanac for 1895, under the head of "Universities and Colleges of Liberal Arts in the United States," that while Massachusetts has nine such institutions, Maryland has ten; while New York, with 6,000,000 people, has but twenty-three, North Carolina, with less than 2,000,000, has eleven; and in the South Atlantic and Gulf States, beginning with Delaware and running down to and including Louisiana, North Carolina leads the list in having three more institutions than Virginia, one more than Maryland, two more than South Carolina, three more than Georgia, seven more than Florida, four more than Alabama, six more than Mississippi, two more than Louisiana; while Texas, with nearly twice the population of any other Southern State, has but eleven, the same as North Carolina. Why thus emphasize North Carolina? Because the State with the most literary institutions ought, in accordance with the eternal fitness of things, to be the first Southern State to provide the kind of education which the youth of the South today most needs.

Out of these eighty-three institutions of learning, dignified by being listed under the above-named head of "Universities and Colleges of Liberal Arts in the United States," how many are devoted to technical education, or how many have departments devoted to that kind of training? I venture to say not one outside of the Miller Manual Training School in Virginia, unless the several so-called agricultural and mechanical colleges are entitled to be considered as technical schools. I do not want to be understood as belittling the agricultural and mechanical colleges, because I believe they are doing a great deal of good as agricultural training schools, but is there one of them whose graduates can take charge of a machine shop? If so, I stand ready to make the *amende honorable*. But if none of them are turning out young men equipped for high and responsible mechanical positions, then it must be admitted that the South is doing little or nothing to equip her sons for the best kind of participation possible for the non-shareholder in the coming industrial development.

In the MANUFACTURERS' RECORD of February 22 I find the following paragraph:

"Hon. Julian S. Carr, of North Carolina, has subscribed \$10,000 to the building fund of the American University, which is to be erected in Washington by the Methodist Episcopal Church. He is said to be the first Southern man to contribute to an educational enterprise north of the Potomac since the war."

It was the appearance of this paragraph which led me to endeavor to start an agitation of this question of the need of technical education at the South, my first idea being to stir up, if possible, some of the wealthy men of the South to do, only on a large scale, for a school of technology what Mr. Carr, the Durham millionaire, has just done for the American University to be established at Washington. It is said that Colonel Carr has given hundreds of thousands of dollars to various educational institutions in North Carolina, and it is undeniable that to have been the first Southern man since the war to make a donation to an educational institution north of the Potomac is to occupy a most enviable position in this day of dying sectionalism and reviving patriotism; nevertheless, as men like Colonel Carr always grow richer and richer, may we not hope that he may be moved to make North Carolina not only first among the South Atlantic and Gulf States in its literary institutions, but first in the Union in the possession of a school of technology which will eclipse the famous one now flourishing at Boston.

Whether this generous son of the "Old North State" may some day do this, or whether some other broad-minded Southerner may be the first to endow a great Southern technical training school, the outcome will be the same; and the name of the man who does it will, when the South shall have become, as it is destined to become, the workshop of the world, be enrolled among those who have done for their fellow-countrymen more than either statesman or warrior has done since Patrick Henry sounded the tocsin which brought to arms Washington and the others who broke the British yoke; for, in my opinion, the technical education of the youth of the South will go farther than anything else to break the yoke which is holding the South in a sort of industrial thralldom.

Wants Information About Atlanta Exposition.

42 RUE DE ROBIANO,
BRUSSELS, BELGIUM February 11Editor *Manufacturers' Record*:

I just read in your paper that an international exhibit will be held at Atlanta, Ga., from September 15 to December, 1895, and I pray you to send me as soon as possible all the conditions, prospectus, plans, sizes, prices of the places, etc. Please tell me also the price of freight from Baltimore or other seaport to Atlanta.

ARTHUR CONGLET.

From Europe as well as from America the MANUFACTURERS' RECORD is constantly in receipt of enquiries for information about matters pertaining to Southern development.

THE MANUFACTURERS' RECORD is pleased to note that Savannah has organized a committee of citizens to increase the manufacturing interests of the city. It comprises Hon. Herman Myers, chairman; Aldermen Garrard and Hudson; from the Cotton Exchange, W. W. Williamson, D. Y. Dancy and J. M. Barnard, Jr.; from the Board of Trade, C. D. Baldwin, J. M. Dixon and B. H. Levy; citizens, J. B. Adams, A. Minis, H. M. Comer, F. B. Papy, I. M. Fleming; secretary, A. N. Manucy. The idea originated with Mr. Myers, the recently-elected mayor of the city. It has planned an extensive outline for work.

A NEW COTTON BALE.

A Possible Revolution In Cotton-Handling.

The MANUFACTURERS' RECORD has repeatedly referred to the experiments that were being made at Waco, Texas, with the Bessonette cotton compress. Some months ago it gave some particulars regarding the shipment to Boston of 112 bales of cotton compressed by the Bessonette system, and to the interest aroused in that city by this

Yet he has been, as a rule, under the impression that he had nothing to do with the matter."

Because of the enormous losses sustained by Southern planters as a result of this wasteful, barbarous system of cotton-handling, there has for years been an eager desire for some improved method. It looks as though this has at last been met. This Bessonette system has been fully tested, and one of the most satisfactory indications of its merit is the fact that Mr.

from the gin it passes between heavy rollers and is wound on a cylinder, making a bale of uniform weight which looks exactly like the rolls of paper used on modern printing presses. The machinery is set to act automatically when the limit of weight of the bale is reached, and then a good covering of stout cotton cloth is wound around the bale, also covering the ends. In this condition it is almost impossible for the cotton to be injured either by mud, water or fire. The Waco plant consists of four stands of

a bale, and saving probably even more in waste, dirt and grease, due to inadequate covering of the old bale. There is also a large saving in insurance and freight, and a careful calculation shows that the aggregate saving by the Bessonette system ought to be from \$3 to \$5 a bale, or say from \$30,000,000 to \$40,000,000 a year. This saving ought to be almost wholly in the interest of the planter, and it is to be hoped that if the Bessonette system is generally introduced, as it doubtless will be, the planter will get the benefit of this enormous difference.

Moreover, the cost of a plant is so small that it can be established in connection with any country gin of sufficient capacity to handle 2000 or 3000 bales of cotton. It is the intention of the managers of this enterprise to secure the organization of sub companies throughout the entire South, and the establishment of the Bessonette baling system in connection with gins wherever there is a point at which a few thousand bales of cotton can be centred.

It is believed by some that ultimately, under this system, the present method of sampling will be done away with when the Bessonette combination gins and presses shall be in general operation. According to this view, each press will then certify to the grade of its output, and self-interest will lead to fairness and honesty in classing cotton, just as self-interest and the laws of trade lead the great flouring mills to brand each barrel as it ought to be. While this view seems rather too much to look for, there are some leading cotton men who believe it. They claim that the entire cotton-handling business will be so completely revolutionized as to bring about such sweeping changes as this.

A few months ago a shipment of 112 bales, aggregating 57,000 pounds, was made to Boston. This entire amount was put in one ordinary freight car, which is about 50 per cent. more than the amount of averaged compressed cotton that can be packed in a car. These bales were carefully studied by New England cotton-mill people, the system was warmly endorsed, and it was generally predicted that this was the beginning



AMERICAN BALE, 500 POUNDS.



INDIAN BALE, 400 POUNDS.

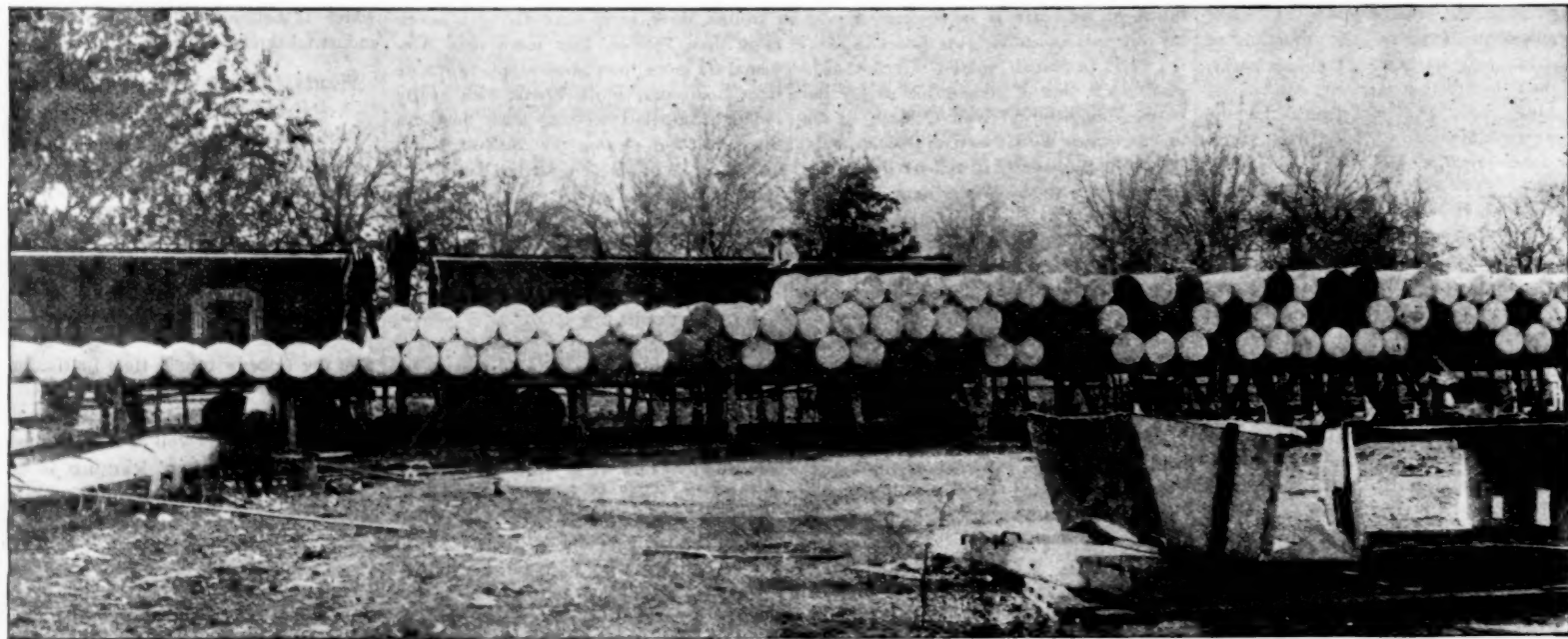


EGYPTIAN BALE, 700 POUNDS.

new method of cotton compressing or baling. Mr. Edward Atkinson, who for years has persistently sought to impress upon Southern farmers the losses incurred by the present system of handling, has well said of it that it is "the most atrocious, barbarous, unsafe, wasteful and unsuitable package in which any great staple of commerce is put up anywhere in the world." It is worth while in this connection to republish cuts from the MANUFACTURERS' RECORD of December 29, 1893, which show

Jerome Hill, of St. Louis, one of the largest cotton factors of the country, who is heavily interested in a number of large compresses, after a careful study of the whole situation, has become so convinced of the value of the Bessonette system that he has agreed to take the exclusive management of the company east of the Mississippi river. Some months ago Mr. Hill, in an interview with the editor of the MANUFACTURERS' RECORD, expressed his deep concern in regard to the value of his present compress interests be-

cause of the Bessonette system. He determined to make a careful investigation of it, and the result is that he has now identified himself with this new system. The new machine consists in the winding up of raw cotton in one long lap, which makes a bale, or rather roll, of cotton of great density, almost as solid as a log of wood, but in such a way that the fibre is in nowise injured. This compress, or rather this system, is very simple and inexpensive. It can be attached at a small cost to an ordinary country gin. As the cotton comes



BESSONETTE COTTON BALES ON PLATFORM AT GIN PLANT, WACO, TEXAS.

a bale of American cotton, one of Egyptian and one of Indian, and which illustrate the truth of Mr. Atkinson's statement. With these we publish a cut made from a photograph showing how the Bessonette bale looks.

Mr. Atkinson, in a recent letter to the "Home and Farm" congratulating cotton-growers on the discovery of the Bessonette method of packing, says "the waste resulting from the dirt collected and the heavy damage therefrom on the existing bale fall back upon the grower and producer of the cotton,

cause of the Bessonette system. He determined to make a careful investigation of it, and the result is that he has now identified himself with this new system.

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tact, thus rendering the cylindrical bale practically non-combustible. In the old bale the air is not entirely excluded, but with the dust and dirt is compressed so as to break the fibres and make the bale begin to swell the moment the enormous pressure begins to ease up, but the new bale never budges from its first estate.

By this system there is a saving in handling, in labor, in bagging, and in ties, as no ties whatever are used. It also does away entirely with the present compressing system, thus saving on this about fifty cents

of an absolute revolution in the handling of cotton.

Some objection has been made by one or two papers to the cylindrical form of the bale, but this is probably not of much importance. This criticism was based on the ground that round bales could not be packed as closely as square ones, but as one of the greatest steamship owners of the world, a London man, admits that for transportation purposes this bale meets every requirement, and as he is even more enthusiastic over it than the cotton men them-

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selves, this point is probably not well taken. The MANUFACTURERS' RECORD has long made a fight against the present baling system, but there seemed to be no possible chance of any change unless there should come about some new system of baling. It looks as though the Bessonette meets the needs of the hour, and if so, the South is to be congratulated upon what promises to save to its planters from \$30,000,000 to \$40,000,000 a year.

It will be remembered that in the latter part of 1893 the MANUFACTURERS' RECORD published the cuts showing the packing of American, Indian and Egyptian cotton, and showing that, while all cotton was at present badly packed, no other cotton in the world was so barbarously handled as American. The cuts of these three bales of cotton were made from photographs taken in Havre, and furnished to the State Department by United States Consul Chancellor. In the consular report referring to these photographs it is said: "The packing of American raw cotton causes a deal of anxiety and complaint here. The jute covering is so torn before the bales reach this place that the cotton is exposed to mud, water, fire and theft. Of the original six or eight wire bands, two, three, four and sometimes more are lost or broken. The cotton bulges out, takes up dirt and dust when dry, black mud in the docks, seawater when in the ships, and rain-water when on land or wharves, or in transmission either by rail or wagon. In transport every gust of wind carries away pieces of the valuable commodity. The wharves, custom-house floors and freight cars are usually covered by pieces torn or dropped from such bales, and the danger from fire is great, for cotton ignites easily, and sparks from cigars or locomotives, fanned by winds, even those caused by the movement of a train or wagon, could cause not only the burning of the cotton, but of other valuable property. * * * The losses by dirt, dust, mud, bursting of the bales, etc., effect the producer and manufacturer in about the same ratio. The increased danger of fire increases the premiums on fire-insurance policies. The mixing of the bales and the 'no-mark' bales cause no end of confusion. More secure packing, a more closer pressing and greater care in covering or wrapping up would be of inestimable and permanent benefit to the cotton trade of the United States."

Contrast such a condition as this with the Bessonette bale, and it looks as though the long-desired end would soon be reached, and American cotton be so compressed and so covered as to avoid such criticism as this, and the enormous losses that have resulted from the present system of handling be saved.

Dallas on the Move.

[Special Corres. MANUFACTURERS' RECORD]

DALLAS, TEXAS, February 25.

The Dallas Commercial Club is taking active steps to secure a cotton mill, and at a recent meeting the following facts were ordered published for distribution among the Eastern mills:

"Dallas is in the midst of the famed black waxy lands of Texas, on the banks of the Trinity river.

"Seven hundred thousand bales are raised in the forty counties closest to Dallas.

"Dallas is one of the largest commercial cities in the State of Texas.

"Dallas enjoys an excellent record for health, its death rate being eleven per 1000, and it has never been visited by an epidemic.

"Dallas has a good system of water works, over twenty flowing artesian wells of less than 800 feet supplying the city.

"Fuel is cheap, \$2 per cord for manufacturing purposes, bituminous coal from \$2 for slack and \$3 to \$4 for lump. Lignite beds exist near the city.

"Steps are being taken to make the

Trinity river navigable to the gulf from Dallas.

"The railroad facilities are excellent, and four new roads are now heading for Dallas.

"Dallas is nearer the markets of California than any manufacturing centre in Texas.

"Dallas already possesses a 12,000-spindle cotton mill, which has just declared a 10 per cent. dividend, and a second mill in contemplation."

These facts demonstrate conclusively what I have frequently written—that every city in the South should have a commercial body whose work is to develop its resources, and not lapse into a crystal state, as many such organizations are doing. A commercial body whose directors spend their time in passing resolutions is worse than none at all; but it is gratifying to state that the Dallas body has a directory of progressive as well as aggressive men, and the organization is accomplishing results.

FREDERIC J. COOKE.

CENTRE OF TIN INDUSTRIES.

Fully \$1,000,000 to Be Spent in Tinplate and Tinware Plants in Baltimore and Suburbs.

From present indications Baltimore and its suburbs promise to be one of the greatest centres of the tinplate industry in this country, owing to its many advantages for manufacturing. Several weeks ago the MANUFACTURERS' RECORD referred to a tinplate mill which was to be built by the Stickney Iron Co. in Canton. It is understood that contracts have been let for much of the necessary machinery, including a 1000-horse-power Corliss engine, which will be supplied by the Maryland Steel Co., of Sparrow's Point, Md.

Norton Bros., of Chicago, who purchased the Abbott Iron Works property at Canton some time ago, intend to establish large tinplate works in connection with works for tin-cans and tin utensils. It is reported that the building and machinery will cost about \$300,000. Plans have been prepared and bids invited for the building.

Arrangements are also being made by William S. Rayner and others to convert a rolling mill built at Curtis Bay, near the city, into a tinplate mill.

Still another large plant, which has already been noted in the MANUFACTURERS' RECORD, is that of which Matthai, Ingram & Co., extensive tinware manufacturers, are large owners. This company is now completing a tinplate mill at Locust Point, and Messrs. Matthai, Ingram & Co. are now building a large warehouse on Hanover street for storage and other purposes, and, the MANUFACTURERS' RECORD learns, has recently purchased property adjoining for \$10,000, upon which they will build still another warehouse and factory.

The total amount of capital to be invested in tinplate and tinware-making in and around the city will be fully \$1,000,000.

LEGISLATIVE junkets, as a usual thing, are to be discouraged as unproductive of good results, but it seems as though the committee on mercantile affairs might make a trip to the South in its investigation of the exodus of Massachusetts cotton mills to some purpose. The committee ought to report intelligently upon what is actually taking place in the South. Mr. Denny of the American Card Clothing Co., tells the Telegram that the mill-owners who go South find abundance of labor which is quickly broken in, and that it is of such desirable nature that they prefer it to the Northern labor which they had employed. Mr. Denny speaks from knowledge. On the other hand, labor agitators, who advocate more hostile legislation to the mill-owners state that the Northern mill-owners who go South must take their help with them. Inasmuch as the committee on mercantile affairs has taken up this matter, it ought to go into it thoroughly. Let the people of Massachusetts know just how it stands—Worcester (Mass.) Telegram.

By all means let a committee of the Massachusetts legislature come South. They will be heartily welcomed, and be given every opportunity to study the South from a cotton-manufacturing point of view.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on pages 77 and 78.]

ANOTHER COMBINATION.

Louisville & Nashville Preparing to Ship to Europe Over the South Carolina & Georgia Road from Charleston.

Some time ago the MANUFACTURERS' RECORD referred to a report that the charter of the South Carolina & Georgia Company had been extended so as to permit it to command a transportation business by water when desirable. It is now announced that the company has given a \$200,000 bond to the government to permit the line to be used for transporting goods by way of Charleston to different parts of the country. This action indicates that the South Carolina & Georgia intends adding foreign business to its traffic, and that it may operate a line of foreign steamship, making Charleston the port of entry. The success of the lines recently established at Newport News and Norfolk show that Southern seaports afford excellent points for exporting and importing ocean freight. With the improvements made to Charleston harbor, it is now one of the best on the Atlantic coast.

The South Carolina & Georgia will do its through business via the Louisville & Nashville. There are indications that the two companies have come to a thorough understanding with each other, and that the Louisville & Nashville will use the former road as its Atlantic seaboard extension. It is a joint lessee of the Georgia Railroad, which connects with the South Carolina & Georgia at Augusta, the route being one of the most direct from the North and West to the Atlantic coast, and touching Atlanta and Augusta, as well as Charleston. The efforts of the Louisville & Nashville to buy the South Carolina & Georgia when the latter was reorganized are well known to readers of the MANUFACTURERS' RECORD. It failed to do so, and then incorporated a company to build a parallel road to the other from Augusta to Charleston. As this line would cost fully \$1,000,000, railway experts were of the opinion that the incorporation was simply a scheme to force the South Carolina & Georgia into a traffic agreement with the Louisville & Nashville. It is very evident that such an arrangement has been made, and that Charleston, as predicted by the MANUFACTURERS' RECORD several months ago, is to become one of the main terminal points for this system, which controls nearly 5000 miles of railways.

Two Important Projects.

The general contractors for the Hendersonville & Brevard road, Messrs. Warren, Jenks & McNeely, of Hendersonville, in a letter to the MANUFACTURERS' RECORD state that they are letting contracts for various sections of the work with the idea of having the line in operation in a few months. The road is to be constructed through a bond issue made by the towns and counties through which it passes. It is to pass along the French Broad river valley and will be twenty-two miles long, connecting with the Asheville & Spartanburg road at Hendersonville. The country it will traverse contains large tracts of hardwood timber.

A letter from Augusta, Ga., to the MANUFACTURERS' RECORD announces officially that the Augusta Southern Company is about to begin the work of changing the line to standard gage. Ties have been purchased, and President James U. Jackson, of Augusta, is now in New York negotiating for rails and rolling stock. The Augusta Southern extends from Augusta to Sandersville, a distance of eighty miles.

The present gage is three feet and the track is laid with 30-pound rails. The line is principally owned by Baltimore and Augusta parties. By changing the road to standard gage it will form part of a direct route between Augusta and Macon in connection with the Central of Georgia.

Earnings of Southern Roads.

The earnings of Southern roads make a very favorable showing for 1894 when compared with other lines. According to Bradstreet's, twenty-four Southern roads decreased but 2.7 per cent. in gross earnings during that year, while every other group except the Mexican decreased from 4.1 to 14.1 per cent., the latter being the ten Northwestern lines, which were affected by crop failure. The net earnings of the Southern group decreased less than 1 per cent. compared with 1893, again making the most creditable showing of any except the New England, which showed an increase of 8.5 per cent. The Southern Railway, under its new management, makes a most striking showing, the net increase of 1894 over 1893 being nearly \$400,000, or between 9 and 10 per cent. of the total net earnings of the year.

Future of the Georgia Central.

Several reports have lately been published relative to the reorganization of the Central of Georgia. One was that the committee were arranging the final details and that the plan would soon be made public. This is partly confirmed by Receiver Comer, who has been in New York conferring with bankers representing security-holders. Mr. Comer states that it will be modified so as to have the maximum fixed charges not over \$1,800,000 per year. This is about \$100,000 less than in the plan recently considered.

Another Railroad Suit.

Another obstacle has been placed in the way of selling the Georgia Southern & Florida road, as desired by the bondholders represented by the Mercantile Trust & Safe Deposit Co. of Baltimore. It is an order to show cause why the sale should not be deferred. The petitioners are Simon Borg & Co., of New York, prominent bankers of that city, who claim to represent \$286,000 in first-mortgage bonds of the line. They claim that it is not to the best interests of their clients to sell the road until general business conditions have improved.

A 230-Mile Road.

A dispatch from Little Rock, Ark., states that the English syndicate interested in the proposed Little Rock & Pacific line, of which Gov. W. M. Fishback is president, has instructed the company to begin letting contracts at once. The line is to extend through Fort Smith and will be 230 miles long.

Railroad Notes.

THE death of Mr. Robert G. Fleming, superintendent of the Savannah, Florida & Western, is announced.

THE passenger department of the Mobile & Birmingham Railway has been moved to Mobile by Receiver Bush.

W. H. DOLL has been appointed traveling passenger agent of the Southern, with headquarters at Memphis, Tenn.

J. W. MAXWELL, of the Missouri, Kansas & Texas system, has been appointed general superintendent of its lines in Texas.

A DIVISION freight and passenger office has been established at Charleston, S. C., by the Atlantic Coast Line, with J. W. Morris in charge.

MR. CHARLES S. CAMPBELL, who for years has filled the position of local agent in Richmond of the Atlantic Coast Line, has been made division freight and passenger agent of that line. The appointment will

take effect March 1, and his headquarters will be in Richmond.

THE Atlantic & North Carolina Company is about to purchase several locomotives. It is understood that the Richmond Locomotive Works will build them.

W. F. LIFSEY, city ticket agent of the Southern system at Chattanooga, Tenn., has been appointed district passenger agent of the Plant system at Savannah.

THE death is announced of President G. W. Thompson, of the Ohio River Railroad Co. The deceased was one of the most prominent railway men in West Virginia.

MR. T. A. BELL, formerly division passenger agent of the Southern, has been appointed division passenger agent of the Plant system, with offices at Montgomery, Ala.

THE Baltimore, Chesapeake & Atlantic has decided to place several heavy locomotives in service between Claiborne and Ocean City, Md., for hauling passenger trains.

THE report of the Baltimore & Ohio for January, 1895, shows gross earnings of \$1,661,466.28, an increase of \$120,297.11. The net earnings for the same period show an increase of \$92,648.89.

THE Illinois Central, it is reported, has ordered 1000 box and 300 refrigerator cars, while the Georgia Central will build 100 freight cars for its own use. The Southern Pacific, it is stated, is about to buy eighteen passenger coaches.

MR. J. C. NEWLIN, of Bamberg, S. C., has invented a locomotive fuel-saver which it is claimed reduces the expense of "firing" an engine fully 50 per cent. One of the special features is the employment of forced draught in the device.

ELIAS E. RIES, of Baltimore, an electric apparatus specialist, has invented what he claims to be an improved motor system for street railway use. He claims that cars can be operated by an electric magnetic induction plan by which no overhead wire, underground conduit or storage battery is needed.

THE railroad commissioner's report issued shows 9153 miles of main line in Texas and 1247 miles of sidings. The total value of the roads, the commissioner estimates, is \$93,785,159. Gross earnings are placed at \$34,197,221; operating expenses, \$25,008,926; tons of freight hauled, 13,285,477; number of passengers carried, 6,220,150.

THE stockholders of the Chesapeake & Ohio have given the board of directors power to secure the use of the Louisville & Jeffersonville bridge and terminals for entrance into Louisville, Ky., in connection with the Cleveland, Cincinnati, Chicago & St. Louis system. They are empowered to make a \$5,000,000 bond issue, if needed, for this purpose.

THE Railway Equipment Guide Co. has issued a "Pocket Directory of Railroad Officials," which not only gives an alphabetical list, but also other information, such as a table showing miles operated, gage and rolling-stock equipment of the railroads and private car lines of the North American continent, and cities and towns where officials have headquarters, with the road to which the official is attached, hotel in the town, and the roads which enter or leave.

At the annual meeting of the Louisville City Railway Co. the report showed that the net receipts after paying taxes and fixed charges were \$87,783.76, a gain of \$14,346.42 compared with the previous year. The officers and directors were re-elected as follows: J. B. Speed, president; St. John Boyle, vice-president; A. H. Davis, Syracuse, N. Y.; I. N. Seligman, New York city; H. H. Littell, Buffalo; Harry Bishop, W. H. Gaulbert, A. P. Humphreys, directors; T. J. Minary, general manager; R. A. Watts, secretary and treasurer.

FINANCIAL NEWS.

A London View on Finances.

What the United States and all other countries are suffering from is the appreciation of gold. Ever since Germany adopted a gold standard the purchasing power of gold has been increasing. The fact that there are large reserves of unemployed gold in the Bank of England vaults does not affect the argument a bit. We are not discussing now the value of money as understood in Threadneedle street, and as measured by rates of discount, but the prices of commodities measured by the European standard. It is surely beyond the reach of controversy at this time of day that gold has appreciated, and that low prices are the evidence of this appreciation.

If this view be correct, it would seem to follow that America is suffering from economic conditions which are more or less general in their bearing, and that the remedy, so far as it is to be locally applied, does not lie in any course which will tend to still further appreciate gold. Yet we hear of a scheme for raising £100,000,000 sterling in Europe by way of a gold loan. That would unquestionably replenish the treasury, and enable the government to retire some of the legal-tender paper—at all events, to prevent it being used over and over again for the purpose of withdrawing gold. But by stimulating the competition for gold it would further lower the gold value of commodities. If the value of American production is to be reduced still more, is there not a strong probability that the tendency will be for the crisis to renew itself as soon as the gold thus acquired is exhausted? But there is an even more serious aspect of the case, and one which none of the financial writers seem to take any note of. This is put forcibly by Mr. Herbert C. Gibbs, who says: "The more gold America takes the more acute will the silver question become." That surely is not a result which England, the creditor nation of so many silver countries, and the finally responsible ruler of India, will care to see brought about. It is all very well to condemn the silver men of the United States. That they are largely actuated by selfish motives may be granted; but without at all subscribing to their foolish attempts to do by isolated action what can only be done effectually by international agreement, we may be permitted to emphasize the importance of the question in its ultimate bearings so far as English pockets are concerned. The point, however, to be specially noted is that silver is not responsible for the present conditions. The silver purchases were mischievous, but the subsequent effect of the silver notes has not been in any way different from that of the greenbacks. If there had been no treasury notes the gold could have been withdrawn from the treasury quite as effectively by the other form of legal-tender paper. The shrinkage in the gold balance of the treasury is due to other causes, the operation of which we have endeavored to explain in a very condensed form. We are prepared to find that the explanation is disputed by that class of writers who hug their old and cherished delusions, and ignore the plain and irresistible logic of facts. One says that an inflated paper currency, and another that the silver mania of the West, is responsible for the present necessitous position. We repeat that it is neither; it is mainly, if not altogether, the appreciation of gold, which recent discoveries have only checked, and not arrested.—London Financial News.

New Financial Institutions.

The organization of a national bank at Lexington, Va., is proposed.

The Co operative Building and Loan Association of Clarksville, Tenn., has been

organized, with Dr. F. J. Runyon, president.

The North Carolina legislature has chartered the South Atlantic Life & Endowment Co.

Arrangements are being made for the establishment of a loan and savings bank at Hickory, N. C.

Dr. Anderson and others are organizing a building, loan and improvement company at Marti City, Fla.

The Atlanta Loan & Investment Co. has been organized at Atlanta, Ga., with W. G. Chisolm, president.

The Meramec Building and Loan Association, of Steelville, Mo., has been chartered with a capital stock of \$50,000.

A charter has been granted to the Mutual Fire Insurance Co., of Augusta, Ga. R. L. Mitchell is at the head of the enterprise.

A branch of the Old Dominion Building & Loan Co. has been organized at Williamsburg, Va., with T. J. Stubbs as president.

A branch of the Atlanta Loan & Investment Co. has been established at Charleston, S. C., with W. G. Chisolm as president.

Charter has been granted to the Bank of Seneca, S. C. The incorporators are Jesse N. Stribling, William A. Lowry and others.

The organization of an insurance company at Keyser, W. Va., is contemplated by J. O. Thompson, J. T. Carskadon and others.

The Citizens' Bank & Trust Co. is being organized by John Trice and W. J. Davis at Tampa, Fla. The capital stock will be \$100,000.

The Capital City Bank has been organized at Tallahassee, Fla., by George W. Saxon, W. A. Rawls, F. T. Myers and others. The capital stock is \$50,000.

Organization of the First National Bank, Washington, N. C., has been completed with J. L. Fowle, president; C. M. Brown, vice-president, and A. M. Damay, cashier. The capital stock is \$50,000.

The incorporators of the Carolina Mutual Fire Insurance Co., of Charlotte, N. C., which was chartered by the legislature, include M. P. Pegram, P. M. Brown, C. F. Jones and others. The capital stock is \$50,000.

New Bond and Stock Issues.

The issuance of \$5000 of bonds is contemplated by Whitworth College at Brookhaven, Miss.

Palestine, Texas, will issue \$18,000 of 5-30-year 6 per cent. bonds for municipal improvements.

Chester, S. C., will vote March 7 on the question to issue \$10,000 of bonds for street improvements.

The finance committee of the Hamilton county (Tenn.) court will shortly arrange for the proposed issue of \$100,000 of bonds.

Bids will be received until March 15 by the board of county commissioners, Sumter, S. C., for \$15,000 of 10-year 6 per cent. county bonds. They are issued to pay off indebtedness and repair the courthouse.

Tuscaloosa, Ala., has secured authority from the legislature to issue \$20,000 of bonds bearing interest at not more than 6 per cent. per annum. The mayor can give particulars.

Bids will be received until March 4 by the clerk of the town council, Abbeville, Ga., for \$10,000 of 30-year 6 per cent. bonds to be issued for municipal purposes. Abbeville has a population of 1500 and taxable property of \$175,000.

An election will be held at Charleston, W. Va., on March 8 to vote on a proposition to issue \$25,000 of 20-year 6 per cent. bonds for building a hospital. The present bonded indebtedness of the city is \$166,100, of which \$65,100 are held in the city's sinking fund.

Authority has been given the board of directors of the Chesapeake & Ohio Railroad Co. by the stockholders to execute a joint guarantee with the Cleveland, Cincinnati, Chicago & St. Louis Railway Co.,

or with that and one or more other companies, of mortgage bonds of the Louisville & Jeffersonville Bridge Co., for a principal sum not exceeding \$5,000,000, bearing interest at a rate not exceeding 4 per cent. per annum.

Interest and Dividends.

The Alexandria (Va.) Insurance Co. has declared a dividend of \$1 per share.

Baltimore Fire Insurance Co. has declared a dividend of seventy-five cents per share. A semi-annual dividend of 3 per cent. has been declared by the Hancock (Md.) Bridge Co.

The Kentucky Wagon Co., Louisville, Ky., has declared a quarterly dividend of 1½ per cent.

A dividend of 10 per cent. has been declared by the Home Permanent Building Association of Portsmouth, Va.

A dividend of 10 per cent. has been declared by the Home Permanent Building and Loan Association of Norfolk, Va.

Financial Notes.

THE Mechanics and Investors' Union, of Raleigh, N. C., has added 16 per cent to its surplus account out of last year's earnings.

AN issue of \$1,000,000 of additional stock by the City & Suburban Railway Co., of Baltimore, has been subscribed for by the stockholders of the company.

Now Is the Time to Advertise.

The South as a whole is today getting more good advertising than any other part of the world. During the past two years of stagnation and depression it has been free from strikes and labor troubles, has had good crops and plenty, albeit little surplus money. Papers all over the country daily advert to these things, the result of which must be to turn the attention of thousands to this section of the country. While this is true of the South as a whole, not many particular places or parts of the South are being specially advertised. Some places, like Atlanta, are attempting successfully to attract particular attention. The time is ripe to advertise a particular section, and money cannot be spent to better advantage than by advertising the climate and resources of Staunton and Augusta county. A few well-placed advertisements would turn a profitable immigration to the county. Just the same advantage would come to the county and city by such advertising as comes to the merchants and business men when they advertise their wares and their professions. Printers' ink used in this way might be made to do a wonderful amount of good.—Staunton (Va.) News.

Mr. T. H. Allen, of Florence, Ala., lately advertised Lauderdale county farms in the *Southern States* magazine and received over 500 enquiries from the North and West. Others have had similar results. Why not advertise in the *Southern States* magazine, and thus attract outside people to your town or county?

THE Washington, Alexandria & Mount Vernon Electric Railway Co. has elected the following-named officers: President, G. E. Abbot; vice-president, Frank A. Reed; treasurer, D. C. Leech; assistant treasurer, D. W. Holden; secretary, F. K. Hipple. This company operates an electric line between Alexandria, Va., and Mount Vernon.

THE Charlottesville (Va.) Woolen Mills has been awarded the contract for furnishing the cloth for the uniforms of the letter-carriers of the Philadelphia postal service. With the exception of last year, the Charlottesville plant has furnished the cloth for this purpose for a number of years.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department, on pages 76 and 77.]

American Cotton and Russian Socialism.

Finance Minister Witte, of Russia, has probably burned midnight oil in studying the economic heresies contained in the Ocala platform; at any rate, his plan to promote the production and manufacture of cotton in Russia bears a striking resemblance to the sub-treasury scheme of the populists in this country. A fund in the State Bank of Russia has been set apart for the purpose of making advances of money to cotton-growers against deposits of their product, presumably in government warehouses. Furthermore, capital is to be loaned to spinners and weavers, so that they may be enabled to purchase the domestic product and make it into yarn and cloth. In order that no element of socialism may be found lacking in the plan, the nationalized cotton industries will be protected against the cheap American-grown staple by a prohibitory tariff.

The experiment will afford a valuable economic lesson, inasmuch as it seems destined to demonstrate the truth that an industry cannot be made to order, but must be evolved out of conditions over which governments have no control. The number of spindles now in operation in Russia is about 4,000,000—less than 5 per cent. of the spindle capacity of the world's cotton manufactures. Still, even this moderate number of spindles consume at least 500,000 bales of raw cotton per annum. Just in what part of the Russian Empire this considerable quantity of the staple is to be grown is not apparent. The Crimea and Southern Russia must be excluded, on account of the early autumn frosts of those regions, which would kill the plants before the bolls could fully ripen. There remains only Turkestan, which is nine-tenths desert, and from the lands along the margins of the few rivers in this sand waste it is expected to obtain a crop nearly one-third as large as the entire cotton product of India.—Philadelphia Record.

The Record does not seem to understand Russia's condition, nor its cotton-raising possibilities. There may be a good deal more in this than the Record comprehends.

Cotton Manufactories in the South.

When the first cotton mill in Atlanta was started, seventeen years ago, Alexander H. Stephens, Georgia's great governor, said: "It is my dream when in every valley there will be found a cotton factory to convert the raw material of the neighborhood into fabrics which shall make warm the limbs of Japanese and Chinese. A country wedded to slave labor is wedded to raw material; and raw material means the lowest reward in the whole line of industry. Now that, through an overruling Providence, we have been freed from this sort of labor, we can turn our hands to development, to mechanics, to manufactures. I welcome this sign of Southern enterprise, and congratulate Atlanta that, true to her record, she is still to point the way." The great commoner spoke prophetic words, for Atlanta has since that time developed as has no other Southern city. But while Stephens spoke as a prophet, he spoke just as hundreds of men had spoken in the North and the West. He used the same arguments that the protectionists have used since the government began. They were heeded by every section of the country before the South heeded them. But that section has continually had representatives in Washington who steadily voted against this development of manufactures and insisted upon branding all manufacturers as "robber barons." The South

has as good a field for manufacture as has the East or the West. Its business men should not wait for anybody to move, but begin their own industrial development, and at the same time elect men to Congress who will regard its industrial development as of some importance and worthy of protection.—Chicago Inter-Ocean.

Textile Notes.

A MOVEMENT to build a cotton mill at Greer Depot, S. C., has resulted in subscriptions of over \$40,000.

MESSRS. F. & H. FRIES, of Salem, N. C. are interested in a new cotton-mill company now being organized.

A MOVEMENT is afoot at Denmark, S. C., for the organization of a \$50,000 stock company to build a cotton mill.

THE Fort Mill (S. C.) Manufacturing Co. has decided to put in 5200 additional spindles, and order for same has been placed.

THE Galveston (Texas) Bagging Factory has been put in operation again with about 100 operatives. The plant has commenced work on a cargo of jute from India.

A MOVEMENT has been started at La Fayette, Ala., for the erection of a cotton mill, and subscription books are being circulated. Mr. Ed McGehee is interested.

THE Mammoth Spring (Ark.) Cotton Mills has secured contract to supply the Arkansas State penitentiary with clothing, in competition with Eastern and other mills.

AT a recent meeting of the stockholders of the Chewalla Cotton Mills, of Eufaula, Ala., held for the purpose of electing a board of directors, the old board was retained.

A COMPANY has been organized to build a cotton factory at Siler City, N. C., and work will commence at once. Mr. J. C. Gregson, of Staley, N. C., can give information.

THE Massachusetts Cotton Mills, of Lowell, Mass., which announced some months ago its intention of building a plant in the South, has selected Rome, Ga., for a location, and will expend about \$600,000 on a mill. Mr. C. L. Lovering, of Boston, is president of the company.

CAPT. E. A. SMYTH, president and treasurer of the Pelzer Manufacturing Co., Pelzer, S. C., has been North placing additional orders for his company's new mill. He has placed entire order for revolving flat-cards and drawing-frames with the Pettie Machine Works, of Newton Upper Falls, Mass.

A MEETING of the directors of the Highland Park Manufacturing Co. was held last week, at which a change of officers was made. Mr. Vinton Liddell resigned as president and as a director, and Mr. Wm. E. Holt was elected president. Mr. J. S. Spencer was elected vice-president, and Mr. C. W. Johnson was elected secretary and treasurer.

THE William J. Hooper Manufacturing Co., for the purpose of making twines, netting, seines, fishing tackle, cordage and similar goods, has been incorporated at Baltimore, Md., by William J. Hooper, Joseph Tate, Van V. Klinefelter, R. Tynes Smith and Frank B. Hooper. The capital stock is \$100,000. The company succeeds the firm of Wm. J. Hooper & Sons.

A CORPS of surveyors has commenced operations on the property of the new Richland Mills Co. at Columbia, S. C., where the mill buildings are to be erected, surveying the grounds and getting things ready for the contractors to break ground and start to work. The contract for laying the concrete foundations has been awarded. The contract for supplying the lumber has been awarded to a large mill in the Pee Dee section, delivery of brick will begin at once, and contracts for the erection of the buildings will be awarded shortly.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

COTTONSEED MEAL FOR HUMAN BEINGS.

A Valuable Discovery by a Southern Physician.

A new use of cottonseed meal has been discovered by Dr. E. V. Clayton, of Columbia, S. C., who has proved by tests that it is valuable as an article of food for human beings, as well as animals. At the request of the MANUFACTURERS' RECORD the Doctor has prepared the following article, based on his observations:

"Replying to your favor of 21st February regarding my experiments and conclusions with reference to cottonseed meal as an article of food for people, I beg to say: My attention was first called to the subject by the conduct of my nephew. He accompanied me to my cattle-yard on my daily visits to look after the feeding of my cows, and gradually began eating the cottonseed meal from the feed bins. My first impulse was to forbid him, but upon reflection, knowing its harmless nature, concluded to let him pursue his taste and note the results. For more than two years now he has eaten it with avidity, and unrestrained. I have seen no indications of the slightest ill effects. He is now four and a-half years old, and remarkably well developed in every physis of character.

"I finally prevailed upon my wife to make some experiments in the kitchen. She mixed one-third of the cottonseed meal with two-thirds white flour or cornmeal, and baked or fried either as batter or dough. We have found that it cooked well, and that the product possessed a rich nutty flavor very pleasant to the palate.

"Cottonseed meal is exceedingly rich in albuminoids, or the nitrogenous elements (flesh and blood formers), as compared with the carbo-hydrates, or starch and fat elements (heat producers), possessing a nutritive ratio of one to one, i. e., one of the former to one of the latter, while that of whole wheat is one to six.

"It is a well known fact that Graham flour, which contains all parts of the wheat, is almost a perfect food, more nearly meeting all the requirements of the human body than does any other natural product; hence it is fair to assume that any combination producing a like nutritive ratio will prove wholesome and nutritious, and if agreeable to the taste, may become a valuable article of food. The nutritive ratio of cornmeal is one to eight, and that of white flour is about the same, so to mix these articles with cottonseed meal in proportions suggested gives a product almost identical in composition and nutritive ratio to wheat. It may be inquired, what advantage is to be gained by using the cottonseed meal in this way?

"The value of cottonseed meal, considered as food for animals, is, according to the German tables, more than twice that of cornmeal, weight for weight. The Southern States produce cottonseed meal in great abundance and sell for one cent per pound; they buy millions of dollars' worth annually of meal and flour at an average of one and a-half cents per pound. To the extent, therefore, that it is practical to substitute the cottonseed meal, it would seem to be a decided economic advantage to do so."

The Market for Cottonseed Products.

NEW YORK, February 25.

The cottonseed-oil market presents no material change since date of last report. The intervention of the holiday has to a certain extent interrupted the progress of regular business. Firmness characterizes

current quotations. Light receipts being a prominent feature of present conditions, the volume of business, particularly exports, is materially retarded. Naturally, the crushers hold out for higher prices, and as an increased oil consumption cannot long be deferred, having in view the manufacture of compound lard and home and foreign butterine or oleomargarine manufacture, their holding stocks in reserve is considered by wiseacres in the trade a good speculative business move. Prime yellow oil cannot be obtained under 26½ cents per gallon, while for the highest grade 27 cents is asked, with 26 cents for the off grade variety. At latter quotation several heavy sales of off grade summer yellow were effected on the 23d, chiefly for foreign markets. Butter oil is in active request for the West, and contracts aggregating 250,000 gallons, chiefly from Texas sources, at 28 cents, have been placed. Crude is readily disposed of at 22 cents in barrels, the light receipts being inadequate to the demand. High-test choice quality crude realizes 22½ cents, while the off crude, of which there seems to be a plentiful supply, is quoted at 16½ cents at the mills. At latter quotation there are but few purchasers, and at 15½ cents a brisk trade could be effected. France and Germany display more interest in summer yellow, while at least two heavy shipments have been made to Holland. The bulk of the export business has, however, been to Italy for use in the composition of salad oils. The importation of Australian butter has a damaging effect on the distribution of the artificial product manufactured in Holland for the English market. The downward tendency of the lard market, owing to the continued heavy hog receipts in the Chicago packing-houses, fails to support the views of the seed-crushers now holding oil stocks in the expectation of rising values. By private advices from Mr. I. I. Culbertson, of the Paris Oil & Cotton Co., Texas, the manufacture of white oil will form the latest feature in the commercial history of that progressive firm. The superior quality of the summer yellow and butter oils, the products of Mr. Culbertson's Corsicana and Paris mills, is well known in the New York Produce Exchange. Mr. Harry Landa, of the Landa Cotton Oil Mill, New Braunfels, Texas, informs your correspondent that his firm is about to erect a refining plant. Evidently the dull times have not deterred progressive spirits of the craft from developing their business in lines allied to it, thus enhancing its value and justly claiming the full meed of possible profits. The following quotations rule at this writing: Crude, prime, 22 to 23 cents; f. o. b. mills, 17½ to 18½ cents; crude, off quality, 20½ to 21½ cents; prime summer yellow, 26½ to 27 cents; butter oil, 27½ to 28 cents; yellow, off quality, 26 cents; white summer, 29 to 30 cents; yellow winter, 33 to 34 cents; white winter, 35 to 37 cents; soap stock, 1½ cents per pound.

Cake and Meal.—The market is in a more satisfactory condition since date of previous report. Receipts of meal at New England points aggregate 1000 tons, while the West is purchasing more freely, the prevailing low values and recent severe weather conjointly determining stock-feeders to lay in supplies. The foreign market, too, shows more activity than for many months, and values have improved to the extent of about \$1 per ton. This is the first break in the protracted monotony of the market, and it is hoped that the impetus thus acquired will lead to better prices in the near future.

MR. GEORGE A. WRIGHT, president of the First National Bank at Palestine, Texas, informs the MANUFACTURERS' RECORD that he contemplates building a 60 ton cottonseed-oil mill at that place, and possibly one at Tyler, Texas, during this year.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department, on pages 76 and 77.]

Lumber Directory.

Readers of the MANUFACTURERS' RECORD who may be in the market for lumber of any description are recommended to the directory of Southern lumber manufacturers and dealers which appears among the advertising pages.

LUMBER MARKET REVIEWS.

Baltimore.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, February 28.

In all departments of the lumber and timber market business during the week has been very quiet, and during the whole month there has been a very light volume of trade. The weather conditions have put a stop to operations in several departments, and with receipts very light stocks have been considerably broken. Planing mills and box factories are unable to move for want of lumber, and the demand from other sources is fair. Receipts of yellow pine are expected to increase as soon as the bay is clear of ice, and there are now on passage considerable lumber for this port. The white-pine trade is also quiet, with prices steady. In hardwood there is very little local demand, and what business there is doing is mostly for export. Advices from Europe are not of an encouraging character, and while there is lumber selling, the prices realized are not satisfactory.

The following list represents the prices current at this date:

[The quotations for yellow pine are for cargo lots, and for all hardwoods the figures indicate values for choice car lots.]

VIRGINIA AND NORTH CAROLINA PINE.

5-4x10 No. 2, kiln dried.....	\$15 50@	17 50
5-4x12 No. 2, " " " " " " " "	17 50@	18 50
4-4x10 No. 1, " " " " " " " "	16 50@	17 50
4-4x12 No. 1, " " " " " " " "	17 00@	17 50
4-4 narrow edge, No. 1, kiln dried.....	13 50@	14 50
4-4 wide edge, " " " " " " " "	18 50@	—
6-4x10 and 12, " " " " " " " "	23 00@	24 00
4-4 No. 1 edge flooring, air dried.....	13 50@	14 50
4-4 No. 2 edge flooring, " " " " " "	10 50@	11 50
4-4 No. 1 12-inch stock, " " " " " "	14 00@	15 00
4-4 No. 2 " " " " " " " "	12 50@	13 50
4-4 edge box or rough wide " " " " " "	9 00@	9 50
4-4 " " " " (ordin'y widths) " " " "	8 00@	8 50
4-4 " " " " (narrow) " " " " " "	7 50@	8 50
4-4 12-inch " " " " " " " "	10 50@	11 50
3/4 narrow edge " " " " " " " "	6 50@	7 50
3/4 wide " " " " " " " "	7 00@	7 50
3/4 x10-inch " " " " " " " "	8 50@	9 50
Small joists, 2 1/2-12, 14 and 16 long.....	7 50@	9 00
Large joists, 3-16 long and up.....	9 00@	9 50
Scantling, 2x3-16 and up.....	8 00@	9 00

WHITE PINE.

1st and 2d clear, 4-4, 5-4, 6-4 and 8-4.....	48 00@	50 00
3d clear, 4-4, 5-4, 6-4 and 8-4.....	43 00@	44 00
Good 1 edge culls.....	14 50@	15 50
Good stock.....	16 50@	17 50

CYPRESS.

4-4x6, No. 1.....	20 50@	21 50
4-4x6, No. 2.....	14 00@	15 00
4-4x6, 16 feet, fencing.....	11 50@	12 50
4-4x6, rough.....	9 50@	10 50
4-4 rough edge.....	9 00@	—
4-4 edge, No. 1.....	18 00@	19 00
4-4 " " " " " " " " " " " "	12 00@	13 00
Gulf, 4-4, Nos. 1 and 2.....	29 00@	31 00
Gulf, 6-4, Nos. 1 and 2.....	31 50@	32 50

HARDWOODS.

Walnut.....	65 00@	75 00
5-8, Nos. 1 and 2.....	80 00@	90 00
4-4, Nos. 1 and 2.....	85 00@	95 00
5-4, 6-4 and 8-4.....	85 00@	95 00
Newell stuff, clear of heart.....	85 00@	100 00
Culls.....	20 00@	30 00

Oak.

Cabinet, white and red, Southern, plain-sawn and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	29 00@	33 00
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Quartered white, Western, 1 and 2 quality, all figured, 6 inches and up wide, 4-4.....	53 00@	55 50
Culls.....	10 00@	15 00

Poplar.

Nos. 1 and 2, 5-8.....	24 00@	25 00
" " " " " " " " " " " "	28 00@	30 00
Nos. 1 and 2, 6 and 8-4.....	32 50@	33 50
Culls.....	13 00@	16 00

SHINGLES.

Cypress, No. 1 hearts, sawed, 6x20.....	7 50@	7 75
No. 1 hearts, sawed, 6x20.....	5 50@	6 50
No. 1 hearts, shaved, 6x20.....	6 50@	7 50
No. 1 saps, shaved, 6x20.....	5 00@	—

LATHS.

White pine.....	2 65@	2 70
Spruce.....	2 15@	2 25
Cypress.....	2 15@	2 25

Charleston.

[From our own Correspondent.]

CHARLESTON, S. C., February 25.

The week under review has shown but little activity in the lumber and timber market, and the demand at the moment is moderate, with prices showing but little improvement. The weather conditions during the month have restricted business, and it is expected that later on there will be a decided improvement. There is at

present, however, considerable lumber moving, and mills at all points adjacent to this city are well supplied with orders. The market closes steady for all grades of well-manufactured lumber at the following figures: Merchantable, \$14 to \$16 for city-sawn, \$12 to \$14 for railroad; square and sound, \$9 to \$13 for railroad, \$8 to \$11 for raft; dock timber, \$4 50 to \$6 50; shipping, \$8 50 to \$10 50; shingles, \$5 to \$7 per thousand, with a moderate inquiry and stocks ample for the demand. Among the shipments during the past week were the schooners Thomas A. Ward with 678,000 feet of lumber; Ella M. Baxter, 215,000 feet; Clara E. Bergen, 373,824 feet; Raymond T. Maull, 400,000 feet, and Florence Leland with 250,000 feet; also 90,000 feet by Clyde steamers, all for New York; schooner Emma C. Middleton with 309,000 feet of lumber for New Haven. The total shipments of lumber from this port since September 1, 1894, were 30,571,891 feet coastwise and 721,123 feet foreign, against 20,846,255 feet coastwise and 1,900,000 feet foreign for the corresponding period in 1893-94. Coastwise freights on lumber and crossies show very little change, and the market is steady, with rates to New York \$4.75 and to Philadelphia \$4.25. Crossies to New York are quoted 11 to 11 1/2 cents each, charters being done at the latter figure.

Savannah.

[From our own Correspondent.]

SAVANNAH, GA., February 25.

The lumber market seems to be in better shape during the past week, and there is a more encouraging prospect for a good demand than for some time past. As at all other points on the Atlantic coast, we have had our lumber trade badly damaged by the late storm and severe frost. A great delay has been caused in the shipment of lumber, as vessels have been very scarce. Reports from the interior state that the roads have been in such bad condition that it was impossible to haul timber to the mills, and consequently the supply of sawed lumber is scarce. The list of values shows no signs of any advance, and the market for all desirable grades of lumber is very steady. Ordinary sizes, \$11 to \$12; difficult sizes, \$13 to \$18; flooring boards, \$15 to \$22; shipstuffs, \$16 50 to \$20, and sawn ties, \$10. Among the shipments of lumber during the past week are the following vessels: Schooners Charles H. Valentine with 451,652 feet pitch pine for New York; Jennie Thomas with 475,232 feet and William H. Allison with 359,612 feet, both for Baltimore; the schooner Douglas Gregory cleared for Philadelphia with 470,000 feet of pitch pine, and the Frank T. Stinson for the same port with 15,839 hewn crossies; the schooner George M. Adams cleared for Bath, Me., with 482,162 feet of pitch pine; New York steamers took out 58,000 feet of pitch pine, Boston boats 7500 feet and Baltimore 22,000 feet. The charter market is quiet and rates are steady, with a scarcity of handy-sized tonnage. From this and nearby ports in Georgia rates are unchanged at \$4 to \$5 for a range including Baltimore and Portland, Me. Steamers to New York and Philadelphia are quoted \$7, to Boston \$8 and Baltimore \$5.

Pensacola.

[From our own Correspondent.]

PENSACOLA, FLA., February 26.

The market for lumber and timber has been somewhat improved since the weather has settled and the effects of the late severe storm and freezing weather have been repaired. There is a good demand at present from South America, and also from the United Kingdom and the Continent, and considerable timber and lumber is moving. A number of charters are reported for early March and April, the following vessels being taken: A foreign bark, 650 tons, hence to the Continent, sawn timber, 95s., March; a foreign bark, 560 tons, to arrive,

sawn timber hence to the United Kingdom or Continent, 100s., or the Baltic, 105s., May-June; a British bark, 498 tons, lumber hence to Rio Janeiro, \$13, and an Italian bark, 975 tons, hence to Marseilles with sawn timber, 92s. 6d. The reports from milling sections in the interior are very favorable and the timber and logging business is improving. Considerable quantities of fine timber are being rafted on the Choc-tawhatchie river, which is arriving in good condition for export. The lumber business is improving, and the mills at adjacent points are all fully employed on good orders. Among the clearances from this port during the past week were the following vessels: Steamship Somerhill for Geestemunde with 982,000 feet of sawn timber and 332,000 feet of lumber; bark Ashlow for Montevideo with 501,000 feet of lumber and pickets; bark Mersey for Rio Janeiro with 685,000 feet of lumber; bark Taurus for Ghent with 640,000 feet of lumber; bark Vstavat for Lubec with 495,000 feet of lumber, and the bark Carl Gustaf for the Tyne with 68,000 feet of lumber and 651,000 feet of sawn timber.

Mobile.

[From our own Correspondent.]

MOBILE, ALA., February 26.

With the advent of fair weather there is more activity among all departments of the lumber and timber business of this port. There is some timber moving at the moment, but reports from Europe are such that few large shipments will be made during the month of March. Lumber is in better demand from Central America and the West Indies. There is also a good trade between this port and the United Kingdom and Continent, and our yellow pine of certain grades is becoming quite a favorite wood. The market for hewn timber during the week has been dull at 12 1/2 to 13 1/2 cents basis, and 12 cents for contract per cubic foot for 100 feet average and classing B1 good. There is a limited demand for hewn oak, and prices are nominal. Hewn poplar is quoted 11 to 12 cents. The bark Battaglia cleared for Marseilles last week with 30,107 cubic feet of sawn timber, making the total clearances since September last 1,527,967 cubic feet, against 1,234,448 cubic feet for the corresponding period last year. The shipments of lumber during the week were as follows: Bark Hjertness with 600,025 feet for Rosario, Argentine Republic; schooner Knowlton for Port de Faix, Hayti, with 150,000 feet; schooner Meteor for Bluefields, Nicaragua, with 73,629 feet, with other clearances amounting to 960,000 feet.

Beaumont.

[From our own Correspondent.]

BEAUMONT, TEXAS, February 25.

The volume of business in lumber during the past week, while not as great as the previous week, has been of an average character, and all indications point to an opening up of trade within a few weeks. Railroad orders have been coming in, and the transactions in yard stock have been liberal, while nearly all the planing mills in this section are fully employed on orders. Yard stocks are well assorted, and the manufacturer has little trouble in filling orders in his line. All the saw mills are running, and there is more snap and vigor in this industry than for some time past. The Journal, in its review of the week, says: "Stocks at consuming points are known to be very low, and if there is anything like a revival of trade the movement of dealers' stocks will be large. The number of timber bills in hand is quite large, and on all that are now being offered advanced prices are quoted." The Consolidated Lumber Co. has been offered some large bills, but has booked no orders recently. The company has on its books about 4,000,000 feet, and is looking after shipments as vessels arrive. Among the vessels now in port loading lumber are the

following: Bark Sigyn, for Montevideo; schooner Senator Sullivan, for Tampico, Mexico, railroad ties; schooner A. B. Sherman, for New York; schooner Severn, for Tampico, Mexico, and schooner Flora Woodhouse, for Laguna, Mexico, all by the Consolidated Export Co. The Reliance Lumber Co. is loading the steamship Elert for Port Antonio, Jamaica, and the Litcher & Moore Lumber Co. is loading the schooner Vanleer Black for Philadelphia. The bark Sunny South cleared last week with 495,000 feet of lumber for Montevideo.

Orange.

[From our own Correspondent.]

ORANGE, TEXAS, February 23.

Everything here at present in the lumber industry is showing material symptoms of improvement, and trade is looking up considerably. There is a good demand for builders' stuff, and it is thought that a good trade with the North and West will soon materialize. Some of the mills already have as many orders on file as they well can handle. The demand from railroads is better, and shipments of ties, bridge timbers and shingles have been quite free during the past week. Planing mills have been delayed for want of dry stock when they were working air-dried lumber, the melting snow having saturated the boards. For this reason shipments of dressed lumber have been light during the early part of the week. Mr. H. J. Litcher has returned from Litcher, La., where Litcher & Moore operate the largest cypress industry in the Southwest. He is greatly encouraged by the growing demand for cypress lumber from the North and Northwest. Shipments made from Litcher since the 1st of January, 1895, have more than quadrupled those of the same month in any former year, while inquiries from dealers and Northern manufacturers are numerous. At Lake Charles the demand is improving, and is better for all grades, while inquiries are freely circulated for railroad material, some considerable bills of the latter class having been placed. Yard stocks are heavy, but are gradually being reduced. The annual meeting of the Vinton Mills Co. was held last week, when the following officers were elected: S. A. Knapp, president; Charles Miller, vice-president; J. H. Cooley, secretary and treasurer, and H. C. Drew, general manager. The lumber trade at Vinton is improving, and the demand fair. The yard stocks are light on account of long shut-down.

Southern Lumber Notes.

It is stated that a Tennessee capitalist will soon erect a saw and planing mill at Inverness, Fla.

THE British schooner H. B. Homan sailed last week from Jacksonville, Fla., for St. Pierre, Martinique. F. W. I. She carried as a cargo 268,528 feet of yellow-pine lumber.

THE private logging railroad of the Peoples' Lumber Co., of Alco, Ala., is being rapidly pushed in a westerly direction by the company, and it will soon be at a point where timber is plentiful.

THE receipts of lumber at the port of New Orleans last week were 744,000 feet, and since September 1 they amount to 37,494,299 feet, against 38,934,516 feet for the corresponding period last year.

A DISPATCH from Huntingdon, W. Va., states that there is over \$300,000 worth of lumber in the Guyandotte river between its mouth and ten miles above. It is all frozen in, and in the event of a sudden rise the owners are of the opinion that the loss will be very heavy.

THE members of the Illinois Lumber Dealers' Association will arrive in New Orleans on the 2d inst. Arrangements are being made for an examination of the mills in and around the city and the facilities which New Orleans offers as a point of ex-

port. On Monday next they will visit the various saw-mill sections in Louisiana and Mississippi.

THE steamer Volusia, of the Philadelphia Line, sailed from Jacksonville, Fla., on Monday last with 100,000 feet of lumber in her cargo, shipped by the Wilson Cypress Co., of Palatka. This company, it is said, has acquired enough cypress timber land in this State to keep them busy for the next thirty years. This firm is from Michigan, and was formerly in the white-pine lumber trade of that State.

WITHIN the next thirty days the big Hicks-McDonald saw mill at Little river, near Knoxville, Tenn., will be put in operation. Their boom is now in the river, and the machinery all set up in the mill, a large two-story structure. The company has given the K. & A. Railroad assurances to justify them in building a siding of half a mile to the mill from Little river. The work will begin at once.

A REPORT from St. Louis states that the Arkansas & Missouri Yellow Pine Lumber Co. is the name of a new organization preparing to open offices in that city, but those interested deny that it is a lumber trust. According to one of the members, the twenty largest mills in the two States, with an annual output of 300,000,000 feet, will hereafter work under one management, with one central office in St. Louis. The officers claim that it is only intended to reduce expenses in line with reduced scale of prices, and that the output of the twenty mills is but one-tenth of the country's output, and, therefore, could not control the market. A meeting is to hold in St. Louis this week to complete details.

THE fifth annual meeting of the Southern Lumber Manufacturers' Association convened in Memphis, Tenn., on the 20th ult., President C. W. Goodlander, of Fort Scott, Kans., presiding. The attendance was large and representative in character, the following States being represented: Tennessee, Arkansas, Mississippi, Louisiana, Texas, Missouri, Kentucky and Alabama. At the conclusion of the roll-call by Secretary George K. Smith, of St. Louis, President Goodlander delivered his annual address. Secretary Smith's report was read, and showed that 184 mills out of 721 in the eight States of Arkansas, Missouri, Texas, Louisiana, Alabama, Mississippi, Florida and Georgia in 1894 cut 1,268,783,096 feet, shipped 1,246,279,867 feet and now have on hand 439,064,715 feet, most of which is old stock. At the morning session on Thursday the time was mostly devoted to the discussion of the graded rules. The rules cover several pages of closely-printed matter, and contain fifty-odd clauses. They were adopted as amended on Wednesday with few changes. The report of the committee on insurance was read and adopted. The report of a special committee on measurements was submitted. This report was among the most important presented. Heretofore the thickness of pine flooring has been something over 28-32, and through the recommendation of this committee was reduced to 27-32. A set of grading rules were also adopted. At the afternoon session the report of the committee was submitted, also that of the committee on resolutions, after which the report of the committee on nominations was read, when the following gentlemen were declared officers of the Southern Lumber Manufacturers' Association: President, C. W. Goodlander, Fort Scott, Kans.; first vice-president, I. I. White, McComb City, Miss.; treasurer, J. R. Best, St. Louis, Mo. Vice-presidents—Missouri, George S. Gardner, Laurel; Arkansas, A. Strauss, Malvern; Alabama, W. W. Wadsworth, Wadsworth; Texas, A. L. Clark, Tyler; Louisiana, W. E. Ramsey, Lake Charles; Mississippi, R. A. Long, Kansas City; Florida, A. M. McMillan, Pine Barren. A motion to adjourn was then put, and the lumbermen went into executive session, from which the press was excluded.

PHOSPHATES.

Phosphate Markets.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, February 28.

The movement in phosphates is light, and the general market is quiet. There is no disposition on the part of manufacturers to increase their stocks at the moment, and everyone is waiting for developments. The present unsettled condition of the fertilizer market in the South is restricting business. In mining sections there is more activity than usual, and in South Carolina shipments have been better. In the phosphate region of Florida work is being actively pushed in mining sections, and advices from Albion, Archer and other points are more encouraging. The market continues very steady, and South Carolina rock is quoted \$3.50 to \$3.75 for crude \$4 to \$4.25 for hot-air-dried and \$7 to \$7.25 for ground rock, all f. o. b. Charleston. Florida rock is quoted \$3.25 to \$3.50 for river pebble and \$4.65 to \$4.75 for land rock, all f. o. b. Tampa or Punta Gorda. The arrival of phosphate cargoes during the week are reported as follows: Schooners Clara Goodwin, 1,400 tons, and Ella G. Ellis, 300 tons, both from Tampa; Lydia M. Deering with 1750 tons from Ashpoo, S. C.; E. G. Hight from Charleston, S. C., with 700 tons, and Clara McGilvery from Bull river, S. C., with 600 tons—total 4750. There are no local charters reported. In New York the charter market is quiet; freights in all directions are scarce and spot tonnage small, but quite ample for the inquiry. There is, however, more doing in phosphate charters, which are as follows: A British steamer, 1051 tons, from Fernandina to Stettin at 17/9, March—chartered abroad; a British steamer from Tampa to Rotterdam, 16/6, March—chartered abroad; a British steamer, 826 tons, from Tampa to Ipswich, 16/ and lighterage—chartered abroad; a British steamer, 1201 tons, from Fernandina to Stettin, 17/1, April 20—chartered abroad; a British steamer, 1420 tons, from Charlotte Harbor to Stettin, 17/6, March—chartered abroad; and a British steamer, 1408 tons, from Fernandina to Lanskrone, 16/6, March—chartered abroad; also a schooner from Chisholm's Island to New York at \$1.95.

FERTILIZER INGREDIENTS.

The situation in ammoniates remains about the same as last reported, and the market is quiet. Manufacturers are not disposed to purchase liberally, and are waiting for lower prices. Stocks in first hands are light, and the movement in the West is confined to small lots. Dried blood and sulphate of ammonia are quiet and easy. There is a fair demand for fish scrap, which is held at previous figures. Nitrate of soda is steady, and in New York importers are free sellers on the basis of \$1.80 to \$1.85 for spot and to arrive.

The following table represents the prices current at this date:

Sulphate of ammonia, gas.....	3 25@	\$3 30
Sulphate of ammonia, bone.....	3 20@	
Nitrate of soda.....	1 95@	2 05
Hoof meal.....	1 80@	
Blood.....	1 95@	2 00
Azotine (beef).....	2 00@	
Azotine (pork).....	2 00@	
Tankage (concentrated).....	1 70@	1 75
Tankage (9 and 30).....	1 70 and	10
Tankage (7 and 30).....	16 00@	17 00
Fish (dry).....	22 00@	23 00
Fish (acid).....	15 00@	15 50

Phosphate and Fertilizer Notes.

THE British steamship Felician cleared last week from Savannah, Ga., having 1200 tons of phosphate among her cargo.

THE new additions to the Belle Phosphate Co.'s machinery include a new duplex Hooker-Colville pump. Large results are expected from the new equipment.

THE Terra Ceia Phosphate Co., of Polk county, Fla., whose plant was destroyed by fire about two months ago, has adjusted its losses with the insurance companies and will rebuild. It is expected that the new plant will be fully equipped with all the

most improved appliances for successful mining.

THE extensive chemical works at Pinner's Point, near Norfolk, commenced operations last week and shipped 200 bags of fertilizers. When everything is in full operation several hundred men will be employed.

THE British steamer Tinehead sailed from Tampa, Fla., on the 21st ult. with 2887 tons of pebble phosphate from the Land Pebble Phosphate Co. for Helsingborg, Sweden. She will touch at Newport News for coal.

ORDERS for the soft phosphates of the Bonnie May Phosphate Co., in Pasco county, Fla., are reported by the superintendent to be ahead of his present capacity, and it will require some weeks to get over the rush.

A SPECIAL from Beaufort, S. C., states that the dredge South Carolina, of the Coosaw Company, sunk on the 16th ult., but was raised on the following day. It is rumored that the Coosaw Company is going to shut down part of its plant.

REPORTS from Inverness, Fla., state that phosphate men in that section report phosphate on the up grade. Numerous inquiries are being received for phosphate lands, and shipments during the month of March are expected to be very liberal. The Hamburg Phosphate Co. will load a vessel at Tampa with 2500 tons of phosphate, which will be shipped to the company's agents in Germany.

It is the purpose of the Plant system to give one of the handsome displays at the Atlanta Exposition. The idea is to have a huge pyramid, in which will be a large display hall, nicely decorated and furnished, with striking exhibits of the various products to be found along the lines of the system through the States of Georgia, Florida and South Carolina. The phosphate interests will be shown up to great advantage.

ADVICES from Fernandina, Fla., state that the following cargoes of phosphate rock are due to leave that port between the 23d inst. and April 1: Pickford & Winfield, 2500 tons; Thuillier & Clark, 8000 tons; Dunnellon Phosphate Co., 5000 tons; Abe Neumann, 5000 tons; B. Arentz & Co., 4500 tons; C. Thalheim, 3000 tons, and Anglo-Continental Company, 2500 tons; total, 30,500 tons. Other shipments will be made, but quantity unknown.

THE shipments of phosphate rock from the port of Charleston, S. C., during the past week were as follows: Bark Tillie Baker for New York with fifty tons; schooners E. G. Hight with 690 tons and Josephine with 970 tons, both for Baltimore; schooner Alice Holbrook for Cartaret, N. J., with 1070 tons, and Isaac T. Campbell with 890 tons for Weymouth, Mass. The total shipments of crude phosphate rock since September 1 amount to 42,045 tons, against 58,861 tons in 1893-94.

THE shipments of phosphate rock from the port of Savannah, Ga., since the commencement of the season on September 1, 1894, amount to 20,089 tons, distributed as follows: Germany, 6820 tons; England, 3688 tons; France, 3757 tons; Denmark, 3704 tons; Italy, 1720 tons, and Austria, 1000 tons. The shipments for the corresponding period last year amounted to only 10,189 tons. Up to this time the shipments are nearly double those of last year, and as future engagements of freight room are largely in excess of last year, it is likely that by the end of August next the shipments will be 100 per cent. above those of 1893-94. As the tonnage offered at Savannah is generally for part cargo of phosphate rock, it gives quite an advantage to Florida shippers, and the consequence has been a large increase in exports from this port.

THE Albion Phosphate, Development & Finance Co., of Albion, Fla., is reported

as opening its mine, which has been closed for some time. Among other companies about to open up mines are the Osceola Phosphate Co. and Peninsular Phosphate Co. The Albion Mining Co. is making arrangements to open more pits. Mr. L. Taylor, of the Portland Company, is sinking wells and is going to put in large fertilizer works. Clarence Camp, of the Camp Phosphate Co., is now opening another mine on his own account. He has the machinery already on the ground. The Albion Phosphate, Mining & Manufacturing Co., of which W. N. Camp is president, had a large output last year, and the managers are now making arrangements to double the capacity. Gen. E. B. Bailey has opened up a mine at Albion, and is said to have a fine deposit.

An Important Carolina Enterprise.

As recently stated in the MANUFACTURERS' RECORD, the Carolina Sulphuric Acid Co., of Blacksburg, is about trebling its capacity. This company, after a year or more of experimental work in the reduction of Southern gold and pyritic ores, is so well satisfied with the results that it is now busily at work enlarging its plant sufficiently to enable it to handle thirty or more tons of ore a day. By this system all of the bi-products are saved. The Durham Fertilizer Co., of Durham, has within the last week or two made a contract with the acid company to build a large phosphate plant adjoining the acid company's plant, agreeing to take a minimum of twenty tons of sulphuric acid a day delivered direct by pipe from the acid company's works into the phosphate works. The Durham Fertilizer Co. is one of the leading fertilizer concerns of the South, having large works at Durham, and having recently built an extensive plant at Norfolk at a cost of probably \$250,000. Its Blacksburg plant will probably have a capacity of about sixty tons of phosphate a day. The reduction of these Southern ores by this new system, saving the gold, the sulphuric acid and all other bi-products, promises to become of enormous value to the entire South. It means, when in full and successful operation, the utilization of ores that have heretofore been without value because they could not be handled by any Southern concern, the reduction in the cost of sulphuric acid for the manufacture of fertilizers, and thus possibly a reduction in fertilizers. Because of these facts the Blacksburg plant is being watched with a great deal of interest by mining and phosphate people throughout the entire country.

Texas Granite Wins.

After careful investigation by the United States government, granite from Llano, Texas, has, it is reported, been selected for the \$3,500,000 government building at Kansas City. The MANUFACTURERS' RECORD has often told of the marvelous quantity and excellent quality of Llano's granite, and this endorsement of it, in competition with the most noted granites of the country, will attract new attention to one of the most remarkable granite and marble sections of the United States.

THE movement in lumber and its products from the port of Apalachicola, Fla., for the year 1894 is reported as follows: Exports of pitch pine lumber, 11,880,495 superficial feet foreign and 12,394,443 superficial feet coastwise; hewn timber, 132,927 cubic feet foreign, and sawn, 958,677 superficial feet; cypress lumber, coastwise, 9,601,559 superficial feet; shingles, 6,000,000, and crossties, 48,000; total value, \$823,516.

A TRANSPORTATION company has been organized at Velasco, Texas, by J. A. Wilkins, J. B. Shea and others with \$10,000 capital to operate a vessel line on the Brazos river and Gulf of Mexico.

MECHANICAL.

The Ewbank Street-Car Fender.

A novel street-car fender that has been approved by practical men is the "Ewbank," which is illustrated herewith. This car fender was invented by a boy of some seventeen years of age, Herbert Bryan Ewbank, Jr., son of Dr H. B. Ewbank, of 2037 Madison avenue, Baltimore. It seems that young Ewbank conceived the idea of inventing a car fender after he had been the eye-witness of an accident about a year ago, when a young lad was killed by an

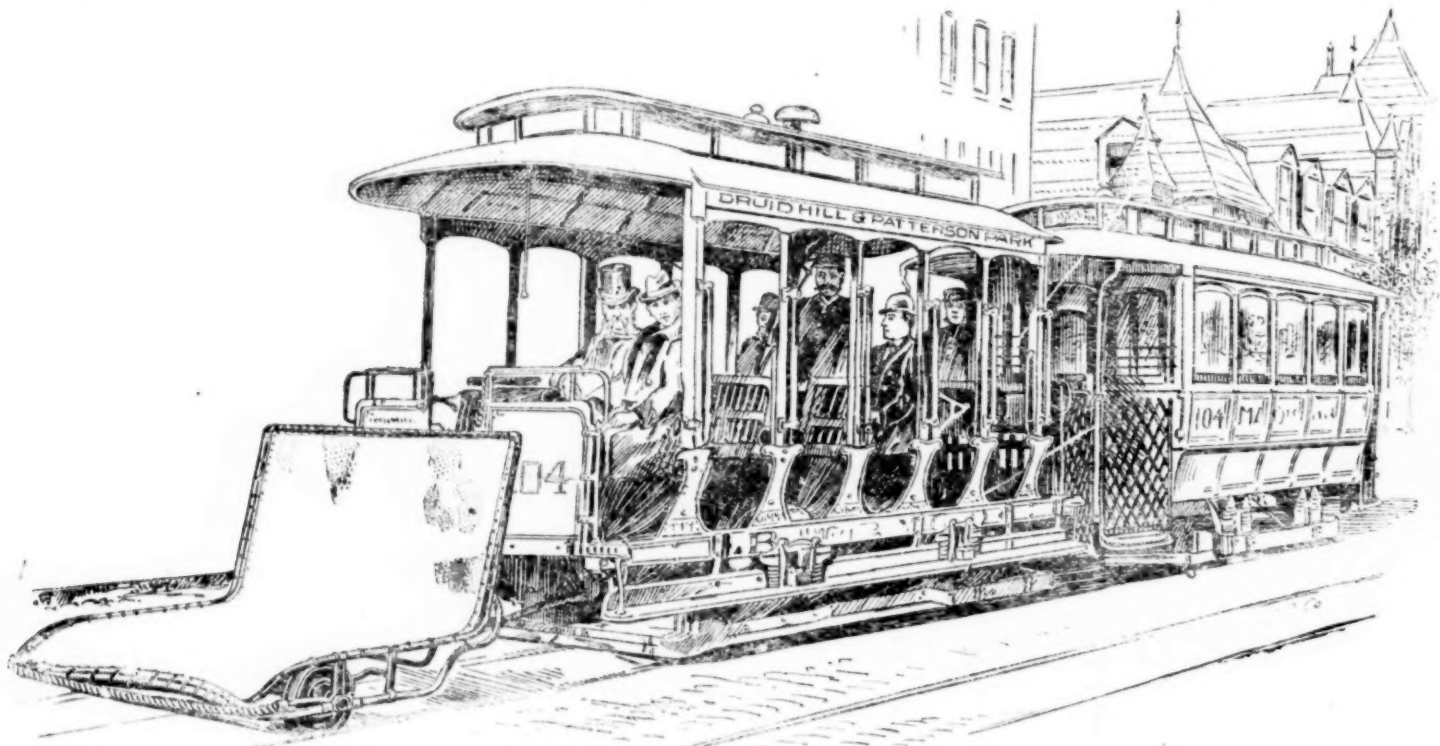
against everything of the kind. It is simple in construction and attends to its own business, without aid of gripman or motor-man. Running on flanged wheels, said wheels being under the netting and protected by same, a body would not come in contact with them in falling. It is attached to the car by a "fifth wheel." By this device the fender is allowed to take all curves, all switches, frogs, etc., and remains firmly on the track in all grades, up and down.

A valuable feature pointed to in this fender is that it takes only the legitimate allowance of the street, namely, the track,

never needs dressing, and fortunately does not require it, for it is too hard to be cut by any tool. It can readily be understood that an emery millstone is capable of greatly increased volume of work. The ordinary buhr does daily less grinding, and it soon becomes necessary to take it up for sharpening. The emery stone, however, keeps steadily at work, and on all moderately hard grinding, like grain or soft minerals, runs for months, becoming sharper and increasing its output, and when finally it requires attention, it is only to deepen its furrows, which are made of a soft rock easily cut out. The emery face should never be

quirements. The cars are made either of best seasoned yellow pine or oak, and other modifications include extra length stringers, timbers, patent bunk end stakes, tool boxes, special pattern wheels for wooden rails. The construction is shown by the following specifications:

Twenty-inch heavy pattern chilled plate-wheels, 175 pounds each; 22-inch heavy pattern chilled plate-wheels, 190 pounds each; 24-inch heavy pattern chilled plate-wheels, 250 or 300 pounds each; axles, three inches, three and one-quarter inches or three and a-half inches round; journals, 3½ inches; oil boxes and journal brasses;



THE EWANK STREET-CAR FENDER.

electric car. The young inventor went to work, and soon had under way the car fender illustrated herewith.

A working model has been running on the Baltimore City Passenger Railway Co.'s cars, and proved quite a success. In construction this fender is a radical departure from the fenders that have been patented or put on cars thus far. It is strongly built and designed for hard service. It is built to save life and limb, and to do this most effectually it is constructed in such a manner that it does not run two feet from the bed of the street, but about three and a-half or four inches from the same. The fender consists of a substantial iron framework covered by a specially-woven wire netting made to cover the frame in the most complete manner. This netting is four feet long, and extends up in front of the car for three feet. This, it is declared, makes it absolutely impossible for a body to come in contact with any part of the front of car or any of its projectiles. It will sustain a weight of 1000 pounds or more, and the fender will receive and sustain a person of any height or weight without injury. The front section or bar of the framework is made in a circular form, as it is not intended to strike the person whose safety depends upon the device. Running in front of this circular bar of the framework of fender is a soft rope stretched taut, and is kept so by spiral springs on each side of the front end of the frame. With the impact of a body against this rope it gives, thereby preventing any injury being done to the person's body or limbs. The body is thrown on to the fender, and is carried until car is stopped without having sustained any harm. Statistics show that in the majority of street-car accidents the victim is struck while walking or standing before a car, being knocked down and then run over. The Ewbank fender, it is said, guards

and never does it take an inch more on curves than on the straight track.

Preparations are being made for building these fenders on a large scale, and some are now being constructed to be placed on the street railways of several leading cities. A \$250,000 stock company is to be organized for their manufacture. Dr. H. B. Ewbank, the father of the young inventor, will be the president; a prominent Baltimore business man, treasurer, and O. G. H. E. Kehrhaun, Peruvian consul, secretary. Fielder Slingluff is the attorney.

Success of Emery Millstones.

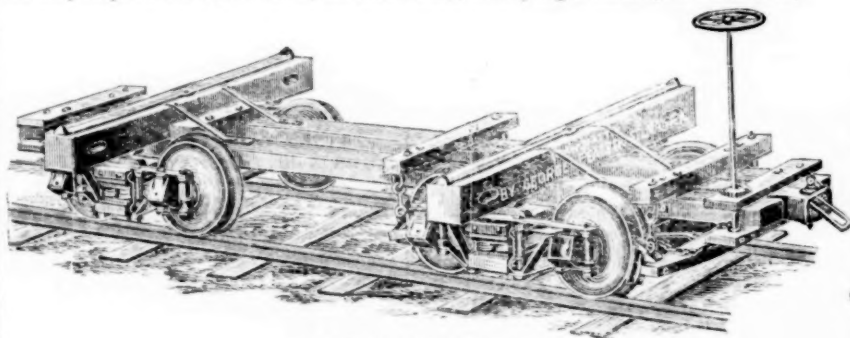
Rock emery is a new phrase in mechanics. It is applied to blocks of emery in their natural condition. Emery is the hardest rock known, and is the hardest mineral substance except the diamond, which scarcely surpasses it in this respect, and is greatly inferior in cutting power and strength.

Emery was well known to the ancients, who probably used it in natural form to cut, and in fine sands for rubbing down and polishing hard substances. But if they so used emery blocks, the art has, it appears, been long lost. Every modern attempt to give regular form to this intractable substance, which no metal tool can cut, has until recently failed.

The wonderful success of the emery wheel in the workshop prepared the way for the acceptance of emery millstones in the mill. But great difficulties were at first met with in their manufacture. A millstone, however, has, it is believed, been at last produced, of perfect form, ample strength, and suited for every purpose of fine grinding. Hundreds of them are already in use, successfully working on all classes of material. Its details are interesting. The large emery blocks are set in a metal filling that is nearly as hard and much stronger than cast iron. The face of the millstone is perfect, and so hard that it

disturbed. Emery will not glaze, nor is it affected by heat. If the stones get together no harm is done, nor are emery stones damaged by small bits of iron or steel that may get between them. In the opinion of experts rock emery forms the hardest, strongest, most cutting and durable millstone possible to be made. Rock emery millstones are also but a trifle more expensive than the best French buhrs, which is a point in their favor. It is estimated that there are already more rock emery millstones in use than all other modern grinders together. Rock emery millstones not only displace the French buhr, but also

truck frame of wrought iron, 2½x¾ inches 2½x¾ inches, 2½x½ inches, bolted together with three quarter-inch machine bolts; four-coil seven-eighths steel bearing springs, 30,000 pounds capacity; regular railroad pattern centre plates and side bearings to insure perfect motion around curves; side bearings hold oil and waste; drawheads of cast iron cushioned on standard freight-car draw spring; one link and two pins furnished with each car; from centre to centre of truck axles, thirty-eight or forty inches; centre of drawhead above track, eighteen inches; top of bunk above track, twenty-eight inches; truck timbers,



NO. 1 LOGGING CAR.

the expensive iron mills, which cost from three to five times as much as rock emery mills. Nothing but the diamond grinds and cuts like emery, and for this reason no millstone material can compete with it. It reduces easily materials that other millstones cannot grind at all, and grinds ordinary substances with more facility and economy than has heretofore been possible.

No. 1 Logging Car.

The cut herewith illustrates a popular style of logging car. It is known as No. 1. Several changes in construction and material are provided for to meet special re-

bottom timber twelve inches wide by two inches thick; truck timbers, top timber twelve inches wide by five inches thick; bunks, 8x10 inches by eight feet long, ten feet centres; stringers or reaches, 6x8 inches; car, twenty feet over all; can be made with centre stringer to lengthen out or shorten up when so desired; brakes on one or both trucks, with detachable brake staff when so ordered; capacity of car, ten tons; weight of car, three-foot gage, about 5200 pounds; made for any gage of track required.

These cars are built at the Peacock Iron Works, Selma, Ala., of which George Pea-

cock is proprietor. At these works are manufactured all kinds of small cars. They are sold complete, painted and ready for use, or the trucks are sold without bunks or stringers, or, if desired, just the irons fitted together, and the woodwork may be made and put on at the mill.

Modern Construction Machinery.

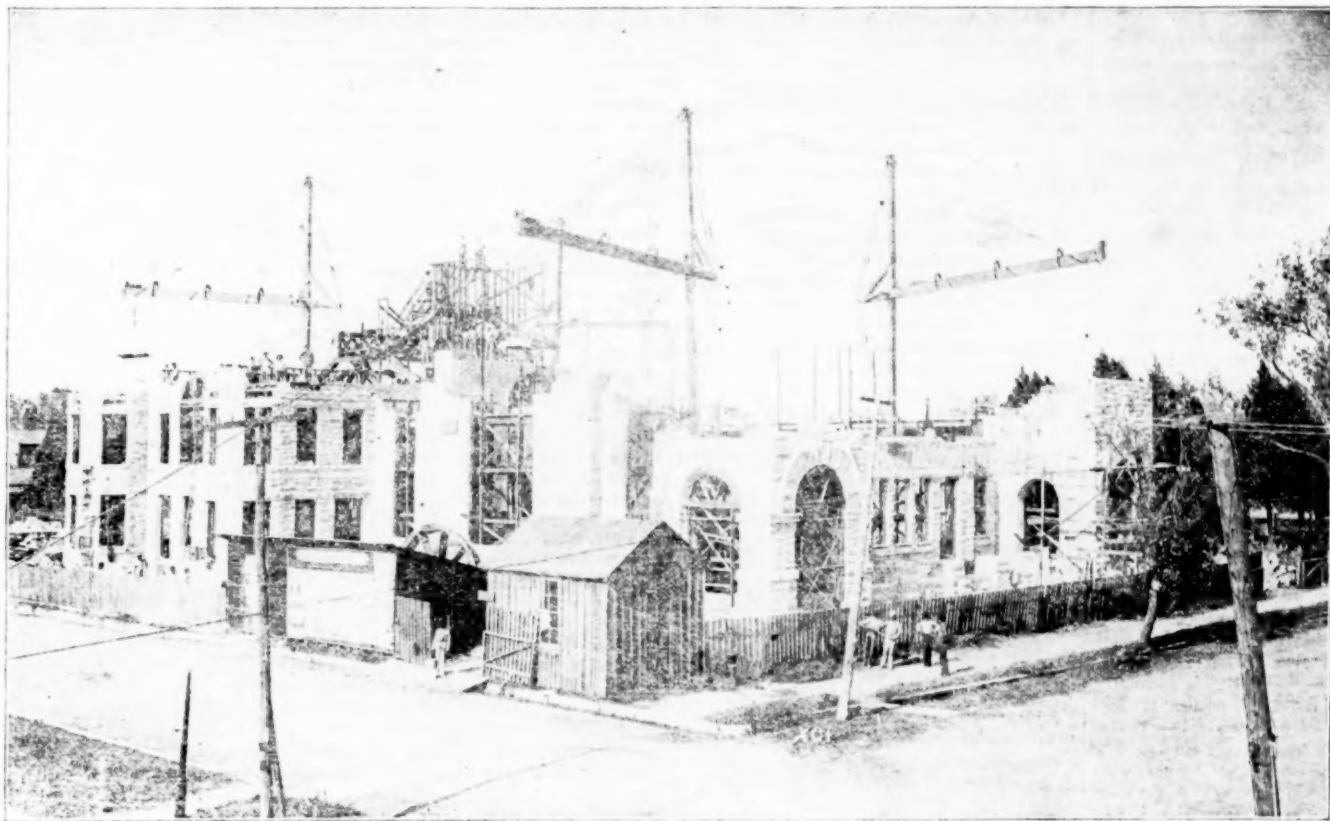
The application of scientific methods in the construction of large buildings in Texas is perhaps no better illustrated than in the accompanying engraving of the First

are two entrances, one on either side through the towers. These entrances lead into the lobby, which extends the entire front and is supported by granite columns. The Sunday-school rooms in the rear portion of the building include the auditorium, a swinging gallery, reading room, library, pastor's study, parlors, kitchen, primary-room and gymnasium.

The derrick plant consists of four crane derricks and is notably complete for such a building. The booms of the various derricks cover all points of the building, thus

Louis, Mo. A door grill showing the street number is a recent effect. A cut herewith illustrates the design, which is quite ornamental, and sets off a doorway in an attractive manner. This company manufactures quite an extensive line of this work, and the demand for its product indicates that it is supplying a class of goods that appeals to the artistic and popular tastes of the people. Some notable examples of its work are to be seen at the magnificent new union depot at St. Louis. The company's staff of designers and workmen was kept

against a solid back. The yoke blocks are displaced by beveled wheels, giving an easier movement. The spacing mechanism is greatly improved, lighter and quicker-working parts being substituted, reducing the wear and increasing the speed of the machine. The carriage is made lighter and stronger and of greater capacity, promoting ease of operation, as well as improving the quality of the work. The paper-feed is changed, dispensing with the rubber bands without losing their advantages. Novel paper guides and an envelope holder are



MODERN CONSTRUCTION MACHINERY.

Presbyterian Church, now in process of erection at Houston. It is said to be the first instance where improved modern mechanical appliances have been adopted by contractors in the State of Texas, in spite of the fact that the State boasts of some of the handsomest public buildings in America. A glance at the illustration will show how work of this class can be facilitated by means of late inventions in equipment, particularly in derricks. M. Clark & Co., of Galveston, who are the contractors for this building, are highly

preventing any unnecessary shifting and handling of material. The crane style of derrick having horizontal boom renders it possible to completely clear the interior obstructions, such as partitions, floorings, etc. The derricks illustrated are all of the same size, viz: Five tons lifting capacity, booms thirty-five feet and masts forty-eight feet long, all being operated by steam hoisting engines. The photograph illustrates the economy of handling heavy material with the latest improved derrick plants. The derrick plant complete was

busy for several months turning out this order. Its range of product embraces bank and counter railings, iron work and metal work in all the latest finishes. The company is also one of the largest manufacturers of wire cloth, and carries a large stock. It makes a specialty of heavy grade cloth for mines.

A New "Remington."

Ordinarily the modern business man employs a typewriter, and eventually, as a result of efficient or inefficient service, he studies its mechanism. It does not take long to divine that the essential requirements in such a machine are durability, ease of manipulation and simplicity. In combining these qualities the "Remington" has won an enviable record as a standard of merit. It had achieved a reputation for its constructive excellence. This reputation is now extended by the production of a new model, No. 6, which is pronounced the acme of mechanical perfection. The design of the machine shows a grasping of the most unimportant, as well as the important, wants of the operator, and satisfying them with marvelous ingenuity. Many desirable improvements are incorporated into this new model, all tending toward greater durability, simplicity and ease of operation. Friction has been practically eliminated by these changes. An improvement in the adjustment of the cylinder secures greater permanence for the original alignment of the machine. The cylinder is made reversible and so arranged as to permit permanent alignment in manifold. Provision is made for one, two and three-line spaces. The ribbon movement is altered so as to lengthen the life of the ribbon, and as well give better impressions. A metal shield protecting the ribbon is an innovation. For corrections the carriage lifts

readily adjusted to any part of the cylinder, facilitating work with narrow paper or on envelopes. A metal tension strap is used. An escapement for the dogs that does not require adjustment and cannot get out of order is a feature. A graduated scale for marginal adjustment on the left and right sides is supplied. An improvement in the



NEW REMINGTON TYPEWRITER.

bell-ringer locks the machine, preventing spoiling the symmetry of a letter by going beyond the desired margin. Many other useful and convenient features that will appeal to the practical eye are also added, making this new machine a notable advancement.

ARRANGEMENTS are being made to establish a line of steamships between Galveston, Texas, and Tampico, Mexico. Remershofer Bros., of Galveston, are interested in the project.

In the Forum for March Mr. B. G. Northrop, "the father of village-improvement societies," explains the method of work and the results of these organizations throughout the country, giving specific instances of the improvements that have been made in towns, and of the resultant benefits, financial and aesthetic.



WIRE DOOR GRILL.

pleased with the work of this equipment.

The dimensions of the church indicate the utility of the derricks for rapid construction. These details are as follows: Front, seventy-six feet; front, including tower, eighty-six feet; depth, 143 feet; height of highest tower, 135 feet; height of other tower, ninety-nine feet; interior height of edifice proper, forty-two feet; seating capacity, about 1000. The main auditorium of the church is constructed like the modern theatre, with theatre chairs, and is finished in hardwood, natural polish. It is lighted by electricity. There

furnished by the American Hoist & Derrick Co., with headquarters at St. Paul, Minn., and branch houses at Chicago, Cincinnati and New York. This company manufactures a very complete line of contractors' machinery of all varieties, and will furnish any additional data relative to this or any other style of derricks or hoisting machinery.

Improved Wire Goods.

Many artistic and handsome conceits are being introduced in decorative wire goods by the Ludlow-Saylor Wire Co., of St.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

*Means machinery is wanted, particulars of which will be found under the head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Avondale—Foundry.—Smith Sons will build a \$6000 foundry addition to their cotton gin works.

Birmingham—Telephone Exchange.—E. B. Bowles and associates have petitioned the city council for telephone franchise.

Birmingham—Rolling Mill.—The directors of the Birmingham Rolling Mill talk of increasing the capital stock from \$500,000 to \$850,000. James G. Caldwell, of Louisville, Ky., is president.

Brewton—Dryhouse.—The Cedar Creek Mill Co. will rebuild its burned dryhouse.

Florence—Bottling Works.—A. A. & S. W. Barber, late of Dakota, have started bottling works.

La Fayette—Cotton Mill.—Stock subscriptions have been started for a cotton mill. Address Ed McGehee.

New Decatur—Drying Plant.—N. B. Hall & Son are building a dry-kiln.

Selma—Sash and Door Factory.—Julien Parke and Frank Stephens will engage in the manufacture of sash, doors and blinds.

Troy—Telephone Exchange.—A. J. Robinson, of Atlanta, Ga., will establish telephone exchange in Troy.

Tuscaloosa—Bridge.—Tuscaloosa county has contracted to build a \$10,000 bridge over the Black Warrior river; J. O. Prude, county clerk.

ARKANSAS.

Fayetteville—Lumber Mill.—The Arkansas Planing & Shaping Co., to manufacture lumber of all kinds, but particularly hardwood and pine, into wagon material lumber, etc., has been incorporated with Albert Byrnes, president; G. W. Cleveland, secretary; Ellis Duncan, treasurer; capital stock, \$6000.

Little Rock—Manufacturing.—The Adjustable Fire Escape Co. has been organized to manufacture and introduce a patent fire escape. J. T. W. Tillar is president; J. E. Briscoe, vice-president, and James M. Stewart, secretary.

FLORIDA.

Aibion—Phosphate Mine.—E. B. Bailey has opened a phosphate mine.

Inverness—Lumber Mill.—A Tennessee party will start a saw and planing mill.

Jacksonville.—Jas. S. Keene, Geo. Gould and others, of New York, have organized the Jacksonville Race Track & Fair Association; capital stock \$100,000.

Orlando—Electric-light Plant.—Franchise for erecting electric light plant has been granted to a company. Address the mayor.

Tampa—Electric-light Plant.—The city contemplates putting in an electric light plant. Address the mayor.

GEORGIA.

Abbeville—Cannery.—A company has been formed to establish a cannery. E. H. Williams can be addressed.

Atlanta—Cotton Mill.—The Fulton Bag and Cotton Mills will erect a new plant of 25,000 spindles. Plans for the buildings are now being repaired, and work on same will soon be commenced.

Atlanta.—Jas. P. Porteus and Arthur H. Smythe have applied for incorporation of the Mexican Village Exposition Co. for the purpose of establishing an exhibition at the Atlanta Exposition; capital stock \$20,000.

Augusta—Box Factory.—A. J. Twigg and asso-

ciates will start a box factory, as reported; charter will be applied for.*

Augusta—Telephone Line.—Hardy Jackson is organizing a new telephone company.

Augusta—Machine Works.—A company has been organized to manufacture a fuel-saving machine for engines, invented by J. C. Newlin, of Bamberg, S. C.

Barnesville—Bleachery.—It is reported that a bleachery will be built.

Brunswick—Ice-machine Works.—P. R. McCrary will engage in the manufacture of ice machines. Briesenick & Son's foundry has contract to do the work.

Carrollton—Bakery.—J. P. Moore is building a bakery.

Cartersville—Telephone Exchange.—J. W. Dodds and G. G. Leake, of Cedartown, are organizing a new telephone company.

Columbus—Ice Plant.—The Golden's Foundry & Machine Co. will erect a 25 ton ice plant; entire equipment now ready to set up.

Elberton—Telephone System.—E. W. Roberts and others will establish a telephone system; franchise has been obtained.

Elberton—Telephone System.—W. G. Long and E. W. Roberts have obtained city franchise for a telephone system.

Hutchinson—Quarries.—We are reliably informed that there is no truth in the reported sale of the Blue Diamond Granite Co.'s quarries, noted last week.

Lost Mountain—Cannery.—W. M. Kemp contemplates starting a cannery.*

Macon—Packing Plant.—L. D. Abel, G. C. Napier and J. R. Napier have incorporated the Abel Packing Co., with a capital stock of \$5000.

Montezuma—Cannery, etc.—The Indiana Fruit Co., lately noted under Macon, is located at Montezuma, where letters can be addressed, care of Mrs. C. H. Maxwell. The company's purpose is to cultivate and can fruits, etc.

Rochelle—Cannery.—A company has been formed to establish a cannery.

Rome—Cotton Mill.—The Massachusetts Cotton Mills, of Lowell, Mass., has selected Rome as the location for its proposed big Southern factory.

Thomaston—Underwear Mill.—G. W. T. Hannah will erect an underwear mill.*

KENTUCKY.

Bandana—Vehicle Works.—John W. Wilkins has recently started a plant for manufacturing vehicles, plows, harness, etc.

Baskett—Coal Mines.—J. N. Grady, Cary & Marble, Harry Guenther and others, all of Owensboro, have purchased and will develop the Baskett coal mines.

Clinton—Water Works.—A system of water supply is talked of.

Louisville—Paper Mill.—Arrangements are being made to put the DuPont Paper Mill in operation.

Louisville—Ice Plant.—John & Frank Simon will build an ice plant to cost \$5000.

Louisville—Street Improvements.—The board of public works will shortly advertise bids on \$106,000 worth of street improvements.

Van Arsdale—Flour Mill.—For information regarding the flour mill, lately noted, address W. L. Jarvis. The plant will have a daily capacity of fifty barrels.*

LOUISIANA.

Crowley—Pumping Outfit.—Abbott Bros. have closed contract for a pumping outfit of 30,000 gallons per minute for irrigation purposes.

Louisiana—Lumber Mills.—William Cameron & Co., of Waco, Texas, have purchased 30,000 acres of land in Louisiana, and will erect mills to cut the timber.

New Orleans—Telephone System.—S. P. Walmsley, Chas. H. Schenck, Wm. P. Nicolls and others have applied for telephone franchise.

New Orleans—Hominy and Meal Mill.—W. S. Youree, of Shreveport, writes that if he can find a good opening, suitable site, rates, etc., he will build a mill of 500 to 750 barrels capacity for manufacturing hominy, grits and meal.

Oak Ridge—Cotton Gin.—J. S. Rolfe will build a cotton gin.*

Plaquemine—Fire Department.—A fire department is being organized by Henry Wilbert, Henry Nadler and others.

Shreveport—Telephone Franchise.—A company will be organized to obtain franchise and establish telephone system. John W. Taber can be addressed.

Vidalia—Cooperage Plant.—A cooperage plant is being built.

MARYLAND.

Baltimore—Cotton Mills.—Articles of incorporation have been filed of the William J. Hooper

Manufacturing Co., which is organized for the purpose of manufacturing twines, netting, seines, fishing tackle, cordage, etc., with a capital stock of \$100,000. The incorporators are Messrs. William J. Hooper, Joseph Tate, Van V. Klinefelter, R. Tynes Smith and Frank B. Hooper. The corporation succeeds the old firm of William J. Hooper & Co., with mills at Woodberry.

Baltimore—Clay-pigeon and Target-apparatus Works.—H. A. Penrose, late of New London, Conn., has formed the Excelsior Keystone Manufacturing Co. with a capital stock of \$100,000, and will erect near Highlandtown a plant for the manufacture of clay pigeons. A site 186x350 feet in size has been purchased, and the works, when completed, will employ fifty hands day and night, turning out 25,000,000 pigeons annually. Targets, traps, trap-pulls and electrical apparatus will also be made. The machinery to be used has recently been invented by Mr. Penrose, and will be put in use here for the first time.

Baltimore—Tinplate Mill.—The Stickney Iron Co. will build an entire new tinplate mill to be operated in connection with its iron works, and work on same will be commenced soon. It is said that the company has already placed order for a 1000 horse power engine and boilers, which are now being made.

Baltimore—Tinplate and Tinware Works.—Norton Bros., of Chicago, Ill., manufacturers of tinware, are preparing to build large tinplate and tinware works at Canton, the buildings to cost \$150,000 and the machinery \$150,000 more; plans for the buildings are ready, and J. C. Tallafiero is in Baltimore, representing Messrs. Norton, ready to contract for the buildings. It is said that the firm will first make tin cans, gradually producing all kinds of tinware; site has been secured.

Curtis Bay (P. O. South Baltimore)—Tinplate Mill.—Negotiations are pending for the conversion of the large rolling mill at Curtis Bay into a tinplate mill. The owners of the plant have decided that the rolling of plates for the manufacture of tin is the most profitable use that the mill can be put to, and William S. Rayner, of Baltimore, expects soon to complete arrangements for the change.

Easton—Basket and Box Factory.—A movement is afoot for the erection of a box and basket factory. Address the Board of Trade.

Hancock—Water Works.—The construction of water works is talked of.

Hancock—Sumac Mill.—E. P. Cahil expects to build a new sumac mill.

Lonaconing—Paint Works.—The George's Creek Mixed Paint & Wood Stain Co. has started a factory.

The Rocks—Stone Quarry.—A company is being organized by M. R. Robinson to quarry stone at the Rocks of Deer Creek.

Washington, D. C.—Bridge.—The Washington & Marlboro Electric Railway Co. will build a steel bridge across eastern branch of the Potomac river.

Westminster—Telephone System.—A company is being organized to establish telephone system with a number of surrounding towns. Address R. B. Hazlett.

Williamsport—Bridge.—A meeting of citizens of Williamsport and of Berkeley county, W. Va., was held on February 25 in the interest of the proposed bridge over the Potomac river. It was decided to hold a public meeting in Williamsport March 11, at which time a final effort will be made to raise enough stock to carry out the project. Should the effort then fail the matter will likely be dropped. Stock to the value of \$8000 has been subscribed. The lowest estimate of the cost of a bridge is \$30,000. Address the mayor.

MISSISSIPPI.

Bogue Chitto—Telephone Lines.—C. H. Trotter will construct telephone lines.*

Natchez—Telephone System.—The Great Southern Telegraph & Telephone Co. may construct line from Natchez to St. Joseph, La.

Terry—Bridge.—The bridge at Terry may be altered into a draw, centre span of 300 feet. Address supervisors of Hinds county.

MISSOURI.

Jefferson City—Bridge.—For information concerning proposed bridge address J. W. Edwards.

Kansas City.—The J. D. Crockett Produce Co., capital stock \$5000, has been incorporated by M. H. Jones, Burgess Abbott, J. D. Crockett and others.

Oregon—Wells.—The city will sink wells. Address F. S. Restock, city clerk.

Palmyra—Electric-light Plant.—H. M. Howard, who has franchise for electric lighting, will organize stock company to erect plant.

Rich Hill—Oil Wells.—A company has been formed to bore oil wells. Address Jno. Marshall.

St. Louis—Glass Company.—The Missouri Glass

& Sand Co. has been incorporated by James Morrissey, C. H. Harkins and D. J. Murnane with a capital stock of \$5000.

St. Louis—Publishing.—The Missouri Publishing Co. has been incorporated on a capital stock of \$10,000 by Henry Miller, W. W. Ellis, Geo. C. Dyer and Edward Gut.

St. Louis—Planing Mill.—The Tower Grove Planing Mill Co., capital stock \$20,000, has been incorporated by J. M. Darr, E. W. Lenke and H. T. Dumm.

St. Louis.—The Globe Shoe & Clothing Co., capital stock \$150,000, has been incorporated by Maurice and Annie Landau and David Horwilleur.

St. Louis—Cotton Mill.—The Missouri Cotton Bating & Manufacturing Co. has filed articles of incorporation with a full paid capital of \$6000 to manufacture cotton fabrics. The shareholders are Albert R. Nauer, Henry W. Koch, Louisa Nauer and Anna Koch.

St. Louis—Gear Company.—The Locomotive Valve Gear Co., capital stock \$50,000, has been incorporated by W. J. Lewis, John A. Kellar and B. F. Clark.

St. Louis—Realty.—The Condon Real Estate Co. has been incorporated with a full-paid capital of \$20,000 by Edward P. Thomas W. and John P. Condon.

NORTH CAROLINA.

Ashboro—Furniture Factory.—A company has been organized to establish a furniture factory.

Rocky Mount—Gold Mines.—W. D. Wood will thoroughly develop the Argo gold mines.

Salem—Cotton Mill.—A cotton mill will be erected near Salem by a company now forming. Address F. H. Fries.

Siler City—Cotton Mill.—A company has been organized to erect a cotton mill, and will commence work at once. Address J. C. Gregson, Staley, N. C.

Siler City—Cotton Mill.—Hadley, Peoples & Co. will erect a warp mill.

Statesville—Shoe Factory.—U. T. Bowden will start a shoe factory.

Warrenton—Tobacco Factory.—A smoking-tobacco factory will be started.

Warrenton—Cannery.—H. Williams & Co. may start a cannery.*

Webster—Telephone Line.—Jos. J. Hooker will establish a private line.*

SOUTH CAROLINA.

Blacksburg—Fertilizer Works.—The Durham (N. C.) Fertilizer Co., will build works at Blacksburg.

Blacksburg—Acid Plant.—The Carolina Sulphuric Acid Co. will triple the capacity of its plant.

Denmark—Cotton Mill.—A subscription list of a new cotton mill company has been circulated; \$50,000 of stock is proposed.

Fort Mill—Cotton Mill.—The Fort Mill Manufacturing Co. will put in 5200 new spindles; already bought.

Greenville—Packing Plant.—The establishment of a pork packery is talked of.

Greer Depot—Cotton Mill.—Endeavors are being made to organize a stock company to build a cotton mill; \$40,000 has been subscribed.

Spartanburg—Telephone System.—A new telephone company is being formed.

Spartanburg—Gold Mines.—A syndicate may develop gold mines in Spartanburg county. Address J. Henry Gulick, Washington, D. C.

TENNESSEE.

Bristol—Telephone System.—A. D. Reynolds, S. D. Jones, A. B. Marston and others are forming a telephone company.

Cleveland—Electric-light and Water Works.—The city will put in electric-lighting and water systems. Address E. T. Hall.*

Crossville—Woodworking Plant.—M. F. & Caper Geib, of Wisconsin, intend to erect a hub, spoke and fellow factory.

Franklin—Water Works.—The city contemplates issuing \$30,000 in bonds for water works. Address the mayor.

Kelso—Flour Mill.—J. H. & G. E. Warren, of Oregon, Tenn., will build a 75-barrel roller flour mill at Kelso.

Knoxville—Candy Factory.—A company has been organized to start a candy factory; H. C. Bondurant, manager.

Mt. Pleasant—Stave Mill.—Jas. Estes and associate, of Columbia, Tenn., will put the Mt. Pleasant stave mill in operation; new machinery ordered.

South Pittsburg—Foundry.—The owners of the Shuster Foundry Co. have incorporated and elected F. H. Shuster, of Philadelphia, president, and Jos. Lodge, of South Pittsburg, vice-president.

TEXAS.

Beaumont—Wagon Works, etc.—W. A. Savage and C. C. Smith, of Charleston, W. Va., contemplate locating wagon and implement works near Beaumont.

Belton—Cannery.—H. B. Hillyer, Julius Dorenfeld, T. A. Cook, J. D. Allen, J. R. Allen and others have organized the Belton Canning Co. to establish a cannery; capital stock placed at \$10,000.

Columbus—Bridge.—A steel bridge will be built; E. J. Sandmeyer, county judge.*

Crowell—Copper Mines.—The Grand Belt Copper Co. is expected to put its mines in operation again after an idleness of some years. H. W. Martin, of Quanah, can be addressed.

Cuero—Compress.—The erection of a cotton compress is talked of.

Dallas.—The W. F. Shook Co., with a capital stock of \$30,000 has been incorporated by W. F. Shook, D. W. Hunter and P. T. Entekin.

El Paso—Carriage Factory.—It is reported that a carriage factory will be erected.

Farmersville—Water Works.—The construction of a water supply is contemplated. Address the mayor.

Gainesville—Cotton Compress.—The Gainesville Compress Co. has bought site for erection of a plant to press 1000 bales every ten hours.

Hillsboro—Compress.—The J. T. Smith Compress Co. has contracted for the construction of a new cotton compress.

Orange—Cotton Mill.—The Board of Trade has received a proposition for the erection of a 10,500-spindle cotton mill.

Palestine—Oil Mill.—Geo. A. Wright contemplates building a 60-ton cottonseed oil mill.*

Palestine—Improvements.—The city will issue \$18,000 of bonds for improvements. Address the mayor.

Paris—Packing-house.—H. H. Kirkpatrick has been mentioned as to build a packing plant.

San Antonio—Ice and Storage Plant.—The San Antonio Brewing Association will erect a new machine-house, ice, cold-storage and filter plant. Contracts will be let this week.

Sherman—Water System.—The city will extend its mains and put in two new boilers; William Tolson, superintendent.

Stephenville—Water Supply.—The Board of Trade contemplates securing water supply.

Taylor—Car-coupler Works.—John Parker and others have organized a company to manufacture a patent car-coupler.

Tyler—Oil Mill.—Geo. A. Wright, of Palestine, contemplates building a 60-ton cottonseed-oil mill at Tyler.*

Velasco—Transportation, etc.—The Velasco Construction Co., capital stock \$10,000, has been incorporated by John Winches, John A. Wilkins and J. B. Shea. The purpose of the corporation is to establish transportation companies with power to own steamships, etc.

Yoakum—Cotton Compress.—Geo. H. McFadden & Bro. will erect a compress to cost \$50,000.

VIRGINIA.

Fredericksburg—Woodworking Plant.—Hancock & Stearns have completed a woodworking plant.

Leesburg—Medicine Factory.—The Arabian Manufacturing Co. has been organized with a capital stock of \$50,000 to operate a medicine factory; Wm. Marshall, president, and Albert C. Stevens, secretary treasurer.

Petersburg—Telephone System.—The new telephone company lately noted as organized will be known as the Petersburg Telephone Co. Address R. D. Gilliam.*

Richmond—Mills.—The Gallego Mills Co. has been incorporated.

Richmond—Cigar and Tobacco Factory.—A charter has been granted to S. J. Dudley, H. C. Laughton, William Gray, J. M. Bailey and Daniel Grinnan, under the name of the Dudley Cheroot & Cigar Co. to manufacture cigars, cheroots, cigarettes, snuff, smoking and plug tobacco, and to plant, cure, sell and import the same. The maximum capital stock is to be \$25,000. S. J. Dudley, president; William Gray, vice president; J. M. Bailey, secretary and treasurer.

Richmond—Viaducts.—W. F. Jenkins has formed a company which proposes to construct viaducts for electrical and telegraph wires; about \$450,000 would be expended.

Stanleyton—Cannery.—The erection of a cannery is talked of. Address the Stanley Furnace & Land Co.

Suffolk—Grist and Saw Mill.—Andrew Carter & Son will add considerable new machinery to the Rand saw and grist mill, which they have just purchased.*

WEST VIRGINIA.

Parkersburg—Carriage Factory.—The Logan Carriage Co.'s new factory will include a two-story and a one-story building with iron roof, to have full equipment of machinery, including seventy-five or 125 horse-power engine and boiler.

Sistersville—Oilfields.—The Standard Oil Co. has purchased the interests of the Victor Oil &

Gas Co. in the Sistersville field; 1200 acres of land and ninety-eight wells included in the deal; price paid \$475,000.

Sistersville—Gas and Oil Wells.—The Earnest Oil & Gas Co. has been incorporated with a capital stock of \$200,000, all paid up. The incorporators are Geo. H. Ernest, Jas. W. Ernest, S. S. Ernest and Henry Ernest, of Marietta, and John M. Ziegler, of Warren, Ohio.

Sistersville—Electric-light Plant.—W. C. Titus, of Ovid, Mich., is said to think of building an electric-light plant in Sistersville.

Sutton—Coal Mines and Saw Mills.—W. H. Sutton, W. E. Alexander, Jacob Hartman and others have purchased and will develop timber and coal lands near Sutton; saw mills will be built.

Wheeling—Soap Works.—Plume & Pekari, 1520 Market street, will manufacture a polish and scouring soap called Kleantit.

BURNED.

Baltimore, Md.—The factories of the Catch-on Clasp Co. and the American Steel Buckle Co.; loss on machinery over \$50,000.

Chattanooga, Tenn.—J. D. Brown's grist and saw mill near Chattanooga.

Columbia, S. C.—Main building of Allen University; loss about \$6000.

Darlington, S. C.—The Darlington Tobacco Co.'s warehouse; loss \$10,000.

Federalburg, Md.—Thos. Fletcher's wood mill.

Forest, Ala.—Flowers & Peagler's lumber mills; loss \$25,000.

Lancaster, Ky.—G. W. Harris's distillery.

Prescott, Ark.—The Picayune's printing plant.

Vandola, Va.—The Vandola Tobacco Works.

BUILDING NOTES.

Abbeville, Ga.—Schools.—The city will build two school buildings at a cost of about \$10,000; will want \$1000 worth of furniture; E. H. Williams, mayor.

Abbeville, Ga.—Opera-house.—The Knights of Pythias have a plan for building an opera house.

Alexandria, Va.—Store.—Thomas Fannon will build a three-story brick store and dwelling.

Alvin, Texas—School.—Geo. F. Petty, of Cham, paign, Ill., has completed plans for the new school building. Address the mayor.

Atlanta, Ga.—Auditorium.—Grant Wilkins has submitted plans of the proposed auditorium, which is to seat 5000 people.

Atlanta, Ga.—City Hall.—J. W. Grant has made a proposition to erect a city hall to cost \$60,000.

Austell, Ga.—Orphanage.—Site has been selected for the proposed Red Men's orphanage, previously noted. J. K. Harris, of Columbus, Ga., can be addressed.

Austin, Texas—Theatre.—Joseph Nalle contemplates remodeling the Orr Hotel into a theatre.

Baltimore, Md.—Warehouse.—Matthai, Ingram & Co. have purchased site for \$100,000 on which to erect a large warehouse.

Baltimore, Md.—Dwellings.—Francis E. Yewell has purchased for \$65,000 forty-four acres of land on the Windsor Mill road which he will improve with a number of dwellings.

Baltimore, Md.—Clubhouse.—The Pimlico Driving Club contemplates erecting a \$5000 annex; John E. Phillips, vice president.

Baltimore, Md.—Hospital.—A new hospital to cost about \$30,000 will be built at Fort McHenry, to have hot-water heat, etc. Contracts will be awarded in a few days.

Baltimore, Md.—Church.—Allen A. M. E. Church will build a new structure to cost \$15,000; Rev. I. F. Aldrich.

Baltimore, Md.—Dwelling.—It is said that a large and costly apartment house will be built. T. W. Tongue can be addressed.

Belton, Texas—Opera-house.—Contract for building the new \$25,000 opera house has been let to Allan Dow.

Benton, Tenn.—Courthouse.—Arrangements will be made in March for the erection of a \$20,000 courthouse; N. B. Graham, county clerk.

Boydton, Va.—Jail.—The county has decided to build the jail lately noted. Plans are awarded for two-story brick building with iron roof, floors to be surfaced with boiler iron, have steel-cage system, furnace heat, laundry fixtures, etc. Address county clerk.

Caldwell, Texas—Opera-house.—E. O. Jannet will remodel his store building into an opera-house.

Charleston, W. Va.—Hospital.—An election will be held March 8 to consider issuing \$25,000 of bonds for building a hospital. Address W. E. Staunton, mayor.

Charlotte, N. C.—Depot.—The Carolina Central Railroad will build a depot of pressed brick to cost \$10,000.

Charlotte, N. C.—Courthouse.—Mecklenburg county will build a new courthouse. Address the county clerk.

Chattanooga, Tenn.—Hotel.—The People's Hotel

Co. intends to rebuild the Southern Hotel, recently burned.

Clear Water Harbor, Fla.—Hotel.—D. R. Gould, Edward R. Gunby and Melville G. Gibbons, of Tampa, have incorporated the Verona Hotel Co. to build a hotel; capital stock \$10,000.

Columbia, Texas—Jail.—J. C. Falckney has prepared plans for the new jail.

Columbus, Ga.—Dwellings.—T. W. Smith & Co. have prepared plans for \$5000 residence for W. A. Little, to have venetian blinds, hardwood trimmings, electric lights and bells, bathroom outfit, etc.; also are preparing plans for residence for George O. Berry to cost \$3500.

Elizabeth City, N. C.—Hotel.—A. L. Pendleton will erect a hotel, as stated last week, building to be three stories high, of brick, and have complete equipment, including fire extinguishers, steam or furnace heat, steam laundry fixtures, etc., to cost \$30,000.

Ghent (P. O. Norfolk), Va.—Hotel.—J. P. Andre Mottu & Co., of Norfolk, are organizing a company to build a first class modern hotel to cost \$150,000.

Granbury, Texas—Church.—A church building will be erected. Address pastor Presbyterian congregation.

Granite, Md.—Church.—Owens & Beiler of Baltimore, have completed plans for a Presbyterian church to be built at Granite to cost \$8000.

Grantsville, W. Va.—Hotel.—Jerome Hardman and associates will build a hotel.

Houston, Texas.—Bids will be opened by Mrs. Sarah C. Williams on March 2 for erection of a brick structure, 90x120 feet; plans, etc., by Alfred Muller.

Jackson, Miss.—Colleges.—The Mary Holmes and the Belhaven Universities will be rebuilt at a cost of \$35,000 and \$30,000, respectively.

Houston, Texas—Hotel.—Frank Rue is preparing plans for a three-story hotel, 100x100 feet.

Kansas City.—The Genesee Street Building Co. has been incorporated for building purposes with a capital stock of \$120,000 by Chas. F. Morse and others.

Kansas City, Mo.—Postoffice.—The Dugan Cut-stone Co. has been awarded contracts at \$317,976 for the erection of the new postoffice building.

Kenova, W. Va.—Courthouse and Jail.—Frank P. Milburn is preparing plans for a \$12,000 jail and a courthouse.

Louisville, Ky.—Dwellings, etc.—Curtin & Hutchings have prepared plans for a fruit-house and dwelling for John Passalacqua & Bro., to be 30x 120 feet in size, four stories, built of brick with stone foundation and trimmings, architectural iron work, iron beams, electric bells and lighting, gas fixtures, steam heating, bathroom outfit, etc., to cost \$15,000. C. S. Kellor has prepared plans for residence for J. W. Jenkins to cost \$3000.

Maryville, Mo.—Schools.—The city contemplates erecting several school buildings. Address the mayor.

Nashville, Tenn.—College.—Several new buildings are contemplated for the Peabody Normal College.

Natchitoches, La.—College.—Contract has been awarded at \$10,361.50 to Mr. Stewart, contractor, of Opelousas, to erect school building. Favrot & Livandais made the plans. Heating plant will be wanted. (See Machinery Wanted column.)

Newport, Ky.—Public Building.—The sum of \$75,000 has been appropriated for a public building; bill signed by the President.

Norfolk, Va.—Schools.—The school board has petitioned the council for \$40,000 for two new schoolhouses. Address the mayor.

Paris, Texas—Courthouse.—Bonds for \$90,000 will be issued to build new courthouse. Address J. C. Hunt.

Pensacola, Fla.—Courthouse Annex.—The county commissioners will open bids on March 20 for building the proposed new courthouse annex; \$30,000 will be expended.

Portsmouth, Va.—Hotel.—Henry Kern contemplates building a hotel.

Richmond, Va.—Seminary Buildings.—The Union Theological Seminary will probably be removed from Hampden-Sydney to Richmond, Va. The question will be decided, perhaps, this year. It is proposed to erect a group of buildings, eight in number, to cost from \$100,000 to \$120,000. Plans will not be called for earlier than October, 1895. Address the president.

Richmond, Va.—Warehouse.—Woodward & Son will erect a lumber warehouse 200x125 feet, thirty feet high, for storing lumber; capacity 4,000,000 or 5,000,000 feet; to be frame building, covered on all sides with corrugated iron and have tin roof. Information wanted concerning tracks, hoists, derricks, elevators and other devices of service in such a building.

Sanford, Fla.—Business Buildings.—Fred Hotchkiss will erect a four-story brick business block.

Savannah, Ga.—Hospital.—The House committee on public buildings and grounds has ordered a favorable report on the bill appropriating \$150,000 for a marine hospital at Savannah.

Spartanburg, S. C.—Office Building.—J. H. Mont-

gomery will build an office building; C. C. Hook, of Charlotte, N. C., will prepare plans.

Staunton, Va.—Church.—Plans will be wanted for the Roman Catholic church noted last week, to accommodate 650 in the auditorium, have steam or furnace heat, gas and electric lights, pipe organ and bell or peal of bells. Address Rev. John Hendricks.

St. Louis, Mo.—Dwellings.—H. Nieman has permit to build three flats to cost \$7000; Wm. Kennedy, flat to cost \$4900, and American Brewing Co., flat to cost \$4000.

St. Louis, Mo.—Dwellings.—W. L. Balso & Son will erect four dwellings to cost \$7000 to \$8000 each, and three to cost \$5000 to \$6000 each.

St. Louis, Mo.—Dwellings, etc.—August Reinke has plans for office building to cost \$15,000; steam heating. Mathew Park will erect a \$5000 dwelling; furnace. S. M. Thomas will erect store building to cost \$6000. Ed Scown will erect flat building to cost \$6000. Otto Bollman will erect a \$30,000 residence; plans now ready; steam heating, architectural iron work, etc. C. Runder will erect a \$7000 dwelling; furnace. C. Sharlot will build a flat to cost \$5000; H. Brownlee, a dwelling to cost \$7000; C. Edwards, a flat to cost \$5000; Geo. L. Bulkley, a dwelling to cost \$3500; John Knoth, a \$10,000 dwelling; S. T. Quinnette, flats to cost \$12,000; J. F. Delaney, store to cost \$25,000; Mrs. Geo. H. Shields residence to cost \$15,000; F. C. Sae, dwelling to cost \$12,000.

St. Louis, Mo.—Warehouse.—M. T. O. Allardt, 511 Pine street, has prepared plans for a warehouse and stores to be erected on Sixth street, to be 75x125 feet in size, four stories, built of brick, have composition roof, architectural iron work, iron beams, electric bells and lighting, plumbing, washstands, water-closet fixtures; cost \$12,000.

St. Louis, Mo.—Parsonage.—The German E. L. Z. congregation will build a \$5000 parsonage.

St. Louis, Mo.—Flats.—Margaret Mathiason will build two flats to cost \$5000.

Waco, Texas—Home.—Buildings for a teachers' home will be built to cost over \$300,000. Address Mrs. D. M. Anderson, Alexandria, La.

Washington, D. C.—Dwellings.—Mrs. Jane C. Hitz will erect a four-story store business block to cost \$25,000; Mrs. P. A. Ames of Boston, will remodel Washington residence after plans by Glenn Brown, to have hot water heating plant; Architect Haller has designed a block of six residences to cost \$30,000.

Washington, D. C.—Dwellings, etc.—A. P. Clark, Jr., 605 F street, has plans for two three-story dwellings to cost \$12,000; will have furnace heat. Contract for erecting building for Mrs. Jane C. Hitz has been let to Henry F. Getz at \$19,500. R. F. Tucker has permit to erect five brick dwellings to cost \$3,000; furnace heat. Samuel C. Heald has permit to build brick dwelling to cost \$7000; furnace heat. John Walter has permit to build four brick dwellings to cost \$12,000; furnace heat.

Washington, D. C.—Dwelling.—Wm. C. Gundie will erect a handsome residence; hot water heat, electrical improvements, etc.

Washington, D. C.—Dwelling.—Joseph G. Bowen will build a three-story brick dwelling to cost \$10,000, and George L. Bradley will make repairs to cost \$6500.

Yoakum, Texas—Hotel.—John Huth will build a 26-room hotel.

Zidonia, Ala.—Hotel.—The Alabama Fruit-Growing and Winery Association will build a hotel; R. E. Pineo, treasurer.

RAILROAD CONSTRUCTION.

Railroads.

Alexandria, La.—It is stated that arrangements are being made to extend the Kansas City, Watkins & Gulf line from its present terminus to a point beyond the Red river. J. B. Watkins, of Lawrence, Kan., is president.

Atlanta, Ga.—The Southern Company will build a double-track spur from its main line to the Atlanta Exposition grounds. W. H. Beaufrie is superintendent.

Augusta, Ga.—The MANUFACTURERS' RECORD is advised that funds have been secured to change the Augusta Southern road to standard gauge. Ties have been purchased, and President Jackson is negotiating for rails and rolling stock.

Augusta, Ga.—It is reported that the work of changing the Augusta Southern to standard gauge is to begin at once, and that Prest. James U. Jackson is negotiating for rails and rolling-stock. The material will be needed for eighty miles of line.

Clayton, Ga.—It is stated that five miles of a line proposed between Knoxville, Tenn., and Port Royal, S. C., have been graded and that ties are being placed. [This is supposed to be the project of Albert E. Boone, of Zanesville, Ohio, already detailed in the MANUFACTURERS' RECORD.—ED.]

Columbia, S. C.—It is stated that a survey has been made for a road from Columbia to Winston-Salem, N. C., in the interest of the Florida Central & Peninsular, of which H. R. Duvall is president.

Columbia, S. C.—The Southern is replacing the

rails on its division between Columbia and Greenville with heavy steel rails. Several steel bridges have also been constructed.

Crossville, Tenn.—The Tennessee Central it is understood, will lay twenty-three miles of track on its line between Monterey and Crossville, now graded. An order for 100,000 ties has been given the Tennessee Construction Co. Jesse Baxter, of Nashville, is president of the company.

Fort Worth, Texas.—It is expected to complete the work of relaying the track of the Texas & Pacific between Fort Worth and Dallas by April 1. Seventy-five pound steel rails are being used.

Fort Worth, Texas.—It is stated that the Chicago, Rock Island & Texas Company has purchased material for part of a proposed extension of its line from Liberal, Kan., to El Paso, Texas.

Galveston, Texas.—The Kansas City, Pittsburg & Gulf Company has been examining the tide-water terminals at Galveston with the view of extending its system to that city and making it a terminus. E. L. Martin is president.

Galveston, Texas.—The La Porte, Houston & Northern has amended its charter to allow of its extension to Galveston; the total length of the road is to be fifty-seven miles.

Georgetown, Texas.—Grading on the Georgetown & Granger road is reported to be completed, and contracts will be let for tracklaying on March 5. M. P. Kelly is manager.

Hendersonville, N. C.—Messrs. Warren, Jenks & McNeely, in a letter to the MANUFACTURERS' RECORD, state that they are about to submit several contracts for grading and tracklaying on the Hendersonville & Brevard road, which is twenty-two miles long, extending between the points named.

Little Rock, Ark.—It is reported that the English syndicate interested in the Little Rock & Pacific has given orders to begin construction work at once on the first twenty miles. Hon. W. M. Fishback is president. The road will be 230 miles long.

Memphis, Tenn.—It is reported that the Kansas City, Memphis & Birmingham will buy the Little Rock & Memphis road at foreclosure on April 17, and possibly extend it into Texas. George H. Nettleton, of Kansas City, Mo., is president of the Birmingham line.

Morgantown, N. C.—A bill has been approved by the State legislature incorporating the Morgantown & Shelby road.

Milan, Tenn.—Parties in the towns named are organizing a company to build a road from Milan to Trenton over a route which has been graded, and is ready for tracklaying. The length is ten miles.

Oakland, Md.—The Oakland & Confluence unfinished road, it is stated, will be completed from Manor Lands, the present terminus, to Mountain Lake Park, eighteen miles distant, by a West Virginia syndicate.

Ripley, Miss.—The Gulf & Chicago (Gulf & Ship Island) has asked the court for permission to secure \$200,000 on receivers' certificates for the purpose of extending the line. W. L. Nugent, of Jackson, Miss., is interested.

Savannah, Ga.—It is reported that the Plant system has let contracts for building the thirty miles of road from Thonotosassa to Dade City, Fla., which will give it a more direct route from Savannah to Tampa. A. A. Aveille may be addressed.

Texarkana, Texas.—H. C. Linsley has received the contract for building seventy-five miles of the Texarkana & Fort Smith division of the Kansas City, Pittsburg & Gulf road. W. A. Williams, of Texarkana, has been chosen general manager of the Texarkana section.

Weldon, N. C.—A bill has been introduced in the North Carolina legislature to incorporate the Roanoke Railway & Bridge Co.

Electric Railways.

Annapolis, Md.—It is stated that arrangements are being made to begin constructing the Annapolis & Bay Ridge electric line in a few days. H. V. Bready, of Baltimore, is engineer.

Atlanta, Ga.—President Dayton Hale, of the Atlanta Electric Railway Co., advises the MANUFACTURERS' RECORD that the company expects to have the road in operation by April 25. Only a part of the equipment has been purchased.

Charlottesville, Va.—The Piedmont Construction & Improvement Co. contemplates extending its electric road to Locust Grove and Fry's Springs suburbs. T. O. Troy is manager.

Danville, Va.—A movement is under way to organize an electric railway company to build a line in Neapolis suburb, including a bridge across the Dan river.

Louisville, Ky.—The directors of the Louisville City Railway Co. have planned several extensions of its system in the city. J. B. Speed is president.

Meridian, Miss.—St. Louis parties, who include J. F. Donovan, J. F. McDermott and E. B. Tyler, have contracted to build an electric line six miles long, and will cost about \$100,000, including rolling stock.

New Orleans, La.—The Orleans Railroad Co. is considering the idea of issuing \$300,000 in bonds

to rebuild its lines for electric motors. L. N. Pettifain is secretary.

New Orleans, La.—The Crescent City division of the New Orleans Traction Co.'s system has been completed and is open for operation.

Norfolk, Va.—J. Andre Mottu, president of the South Norfolk Street Railway Co., in a letter to the MANUFACTURERS' RECORD, writes that the road is to be from two to five miles long.

Richmond, Va.—Two companies desire franchises to build electric roads on Broad street. In one, W. F. Jenkins is interested. It proposes to use a patent underground conduit wire system with iron ties and steel rails. The other company is represented by Julian Bryant, and will use the overhead trolley system. To complete either road a \$450,000 steel bridge will be needed.

St. Louis, Mo.—The Magnolia Avenue Railway Co. has asked for a franchise to build an electric double-track road along Magnolia and other avenues. Address Thomas J. Prosser.

St. Louis, Mo.—The Jefferson Avenue Railway Co. has decided to change its motive power to electricity.

Washington, D. C.—Congress has acted favorably on bills allowing the Rock Creek Railway to extend its lines inside the city limits, and incorporating the Washington & Maryland Railway Co., in which J. Kesley Schoeff, of the Eckington & Soldiers' Home electric road, is interested.

Washington, D. C.—Congress has given the Washington & Marlboro Electric Co. privilege to build a road into the northeastern suburbs, including a steel bridge over the Potomac.

Washington, D. C.—The Metropolitan Railway Co. is preparing to begin the construction of its conduit wire system. S. L. Phillips is president.

MACHINERY WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Barrel Machinery.—W. H. Miller, Madison, Ind., wants machine for turning small barrels for tacks.

Belting.—Andrew Carter & Son, Suffolk, Va., want belts.

Bobbin Machinery.—The Lyndon Manufacturing Co., Athens, Ga., wants machinery for making bobbins.

Boiler and Engine.—The Virginia Soapstone Co. wants to buy a twenty-horse-power boiler and a twelve or fourteen-horse-power engine, both second hand, in first rate condition. Address J. W. Foster, manager, Schuylers, Va.

Boiler and Engine.—E. J. San Offie, Baltimore, Md., wants second hand sixty to seventy-five horse power engine and 100 horse power boiler.

Box-nailing Machine.—W. H. Miller, Madison, Ind., wants a box nailing machine.

Brass or Iron Banks.—Wanted, small brass or iron auxiliary banks. Address Box No. 8, Valdosta, Ga.

Bridge.—Bids will be opened March 18 for an approach span to Cummins Creek bridge and for one steel span seventy-five feet long and fourteen feet clear roadway; also set of cylinder piers thirty feet long. Address E. J. Sandmyer, county judge, Columbus, Texas.

Broom Machinery.—H. E. Bonitz, 129 Market street, Wilmington, N. C., wants to correspond with manufacturers of broom machinery.

Canning Machinery.—W. M. Kemp, Lost Mount ain, Ga., wants prices on canning machinery.

Canning Machinery.—H. Williams & Co., Warrenton, N. C., want prices on machinery for canning tomatoes.

Corn and Meal Mill.—L. D. Yeagan, Murfreesboro, Tenn., wants a corn and meal mill of 250 bushels capacity daily.

Cotton Gin.—F. M. Barron, Sherrill, Ark., wants prices on cotton gins.

Cotton Gin.—J. S. Rolfe, Oak Ridge, La., will need gin-stands, shafting, pulleys, belting, press, etc.

Cotton Machinery.—L. D. Yeagan, Murfreesboro, Tenn., wants machinery for manufacturing cotton rope, plow lines, window cards, etc.

Crushing Machinery.—L. D. Yeagan, Murfreesboro, Tenn., wants to correspond with manufacturers of machinery for crushing rock.

Drain Tiles.—Wanted, 500,000 feet of three inch first class round drain tiles, 20,000 feet of four-

inch first class round drain tiles, 18,000 feet of six-inch first class round drain tiles, to be delivered at Curles wharf, on James river, Va., twenty-five miles below Richmond. Address bids to M. Lienau, Cotman P. O., Henrico county, Va.

Drying Apparatus.—H. T. White, Matewan, W. Va., wants drying apparatus for dry house, second hand.

Electric-lighting.—Proposals are wanted to furnish Cleveland, Tenn., with ten to fifteen arc electric lights. Address E. T. Hall, chairman.

Electrical Supplies.—The Boyd's Telephone Co., Boyd's, Md., will buy electrical supplies.

Elevators, Hoists, Trucks, etc.—See Building Note of warehouse at Richmond, Va.

Engine.—Noell Bros., Roxboro, N. C., are in the market for an engine to run presses, etc.; want an engine that can run to advantage in a town which has no water or gas.

Excelsior Machinery.—The Piedmont Mattress & Excelsior Co., High Point, N. C., wants excelsior machinery.

Feed Mill.—J. E. McCosh, Hickory Flat, Ala., wants a feed mill to grind corn cob and husks.

Fire Equipment.—Proposals will be opened at Austin, Texas, on March 16 for one aerial hook-and-ladder truck with full equipment, extension not less nor more than fifty feet, or one city hook-and-ladder truck with tiller, seven to ten ladders, longest not over sixty feet, weight not to exceed 4000 pounds. Address C. C. Roberdean.

Flour Mill.—W. L. Jarvis, Van Arsdell, Ky., wants complete outfit for 50-barrel flour mill.

Furniture Factory.—Kendrick Bros., Cherryville, N. C., want machinery for manufacturing furniture.

Grist-mill Supplies.—Andrew Carter & Son, Suffolk, Va., need bolting cloth.

Heating Apparatus.—T. D. Boyd, Natchitoches, La., will want bids on steam or hot water heating plant for school building.

Lathe and Planer.—Wanted, second-hand large lathe and medium planer; give price and make. Address C. J. Sun Office, Baltimore, Md.

Laundry Machinery.—H. E. Bonitz, 129 Market street, Wilmington, N. C., wants to correspond with manufacturers of steam laundry outfit.

Lumber-mill Machinery.—Andrew Carter & Son, Suffolk, Va., need lathing machine and saws.

Mining Machinery.—C. A. Beck, Pinix, N. C., wants catalogues of mining machinery.

Oil-distilling Machinery.—C. B. Warrand, Box 20, Savannah, Ga., wants rosin oil stills, probably six or eight.

Oil-mill Machinery.—F. M. Barron, Sherrill, Ark., wants prices on 30 ton cottonseed oil mill f. o. b. Sherrill.

Oil mill Machinery.—Geo. A. Wright, Palestine, Texas, wants equipment for two cottonseed-oil mills (sixty tons each).

Paper-bag Machinery.—The Parchment Cigar Bag Co., Alexandria, Va., wants dies and gummer for paper bags; also sheers to use with dies.

Paper-roll Plug Machinery.—W. H. Miller, Madison, Ind., wants machine for turning paper-roll plugs.

Planer.—The Piedmont Mattress & Excelsior Co., High Point, N. C., wants buzz planers.

Power Plant.—R. Henderson, Chambersburg, Pa., wants an inexpensive power of one quarter or one-half horse (motor, engine or other machine).

Printing Machine.—H. T. White, Matewan, W. Va., wants a printing machine for box shooks, second hand.

Printing Press.—Ace 596 Sun Office, Baltimore, Md., wants a small printing press.

Pumping Engine.—Sealed proposals will be received until March 12 for one high-duty vertical compound pumping engine, capacity 10,000,000 United States gallons in twenty-four hours, against domestic head of 165 feet, and same amount against a fire pressure of 250 feet; maximum boiler pressure ninety pounds; bidders to specify piston speed and the duties obtained, when pumping, at rate of 6,000,000 United States gallons in twenty-four hours against domestic head, and at rate of 10,000,000 gallons in same time and head; pump to include all necessary valves, suction, discharge, steam and overflow connections, etc. Address J. C. Woodside, water commissioner, Dallas, Texas.

Railroad Cars.—The Southern Pacific Railroad is inviting bids for the construction of eighteen first-class passenger cars. Address J. Krut schnitt, general manager, New Orleans, La.

Railroad Equipment.—W. E. Parker, Camden, S. C., wants to buy equipment for narrow-gauge railroad—engine, cars and road equipments; also wants catalogue and prices of second-hand equipments.

Railway Equipment.—S. Davies, 37 West Centre street, Shenandoah, Pa., desires prices of 20 to 35-pound per yard rails, new or second-hand, for three or four miles of road, to be delivered in West Virginia on West Virginia & Pittsburg Railroad; also wants price of a small locomotive, ten to thirteen tons narrow gauge, new or second-hand, to travel a grade of two to four

degrees. Give particulars and price delivered in West Virginia on West Virginia & Pittsburg Railroad.

Railway Supplies.—The Atlanta (Ga.) Electric Railway Co. is in the market for overhead material, rails and other minor supplies. Address Dayton Hale, president.

Riveting Machine.—B. F. Stockdon & Bro., Staunton, Va., want a riveting machine for boiler work.

Roofing.—W. L. Jarvis, Van Arsdell, Ky., wants seventy-five squares of iron roofing.

Roofing.—Andrew Carter & Son, Suffolk, Va., need roofing.

Roofing.—See Building Note of warehouse at Richmond, Va.

Saws.—O. Rudolph, Douglas, Ga., wants second-hand hand saws and fixtures, also jig saws.

Tank and Tank-wagon.—R. B. Crawford, 23 Garnett street, Atlanta, Ga., is in the market for one second-hand 300 to 325-gallon tank-wagon, and one 6000 to 7000 gallon stationary tank; wants a bargain.

Telephone Equipment.—Jos. J. Hooker, Webster, N. C., wants prices on telephone equipment, including wire per mile.

Telephone Equipment.—The Boyd's Telephone Co., Boyd's, Md., will buy telephones, line material, etc.

Telephone Equipment.—C. H. Trotter, Bogue Chitto, Miss., wants prices on telephone equipment.

Telephone Equipment.—The Petersburg Telephone Co. will want telephones, wire, poles, insulators, pins, brackets, crossarms, switchboards, etc. Address R. D. Gilliam, Petersburg, Va.

Underwear Machinery.—G. W. T. Hannah, Thomaston, Ga., wants machinery for manufacturing underwear.

Veneer Machinery.—J. M. Rogers, Waynesville, N. C., is in the market for veneer machinery.

Water Supply.—Proposals are wanted to furnish water supply to Cleveland, Tenn. (thirty or forty hydrants). Address E. T. Hall, chairman.

Water Works.—Bids will be received until March 19 for the construction of complete system of water works, including all machinery. Address Robt. L. Moye, mayor, Cuthbert, Ga. (See advertisement in MANUFACTURERS' RECORD of March 1).

Wood Balls.—Frank F. Howe, Sistersville, W. Va., wants to contract for a lot of hardwood balls turned up with slots cut in them (about two inches diameter).

Wooden-stave Pipe Line.—R. W. Havens, city engineer, Dallas, Texas, will receive sealed proposals until February 19 for constructing a 36-inch wooden-stave pipe line about 15,000 feet long; specifications on application. Check for 5 per cent of bid to accompany proposal.

Woodworking Machinery.—B. F. Stockdon & Bro., Staunton, Va., want dimension planer, boring machine, mortising machine and handle machinery.

Woodworking Machinery.—Kendrick Bros., Cherryville, N. C., want machinery for manufacturing sash, doors, blinds and furniture.

Woodworking Machinery.—A. J. Twigg, Augusta, Ga., wants machinery for manufacturing boxes, baskets, butter-dishes, crates, etc.

Woodworking Machinery.—"Lock Box H," Monroe, N. C., wants machinery for manufacturing hames, singletrees, etc.

Woodworking Machinery.—H. T. White, Matewan, W. Va., wants a double surfacer and a hand matcher, second-hand.

TRADE NOTES.

THE removal is announced of the Deane Bros.' Steam Pump Works at Indianapolis, Ind., to new quarters.

AMONG recent orders taken by the Memphis Car & Foundry Co., of Memphis, Tenn., is one for a number of tank cars for the Farrell Car Line Co., of Omaha, Neb.

THE kerosene-oil feeder being introduced by the Sims Co., of Erie, Pa., is proving to be an economic and a useful device in the boiler room. A large number are in daily use, and the volume of orders is increasing. Having a single connection with the feed-line adds to the desirability of this device. An agent sent the manufacturer an order for five one-gallon, three three-gallon and one 10-gallon machine as the result of one week's work.

CHARLES A. SCHIRREN & Co., of New York city, note that the demand for their goods is on the increase. This firm makes the "Electric" leather belting, and its policy is to keep the quality of its products up to the highest possible standard. Late orders included one for 125 feet of 68 inch three-ply belt for the Trenton Passenger Railway Co., Trenton, N. J., and another for seventy-eight feet of 42 inch three-ply belt for the Brookline Gas Light Co., Brookline, Mass.

THE reduction mills manufactured by the Frisbee Lumber Mill Co., 136 Liberty street, New York city, are figuring largely in international trade.

Philip A. Cook, manager of the company, has just returned from a European trip and reports an encouraging state of trade for his company's product. The distinctive facilities of these mills strike the trade at home and abroad with favor. The wet mills readily reduce from three to four tons of ore per day with a great economy. Tests have shown an average of fourteen horse-power. Any degree of fineness, either wet or dry, can be obtained.

A new style of drawing instrument is being introduced by F. Weber & Co., of Philadelphia, Pa. It is so arranged that on opening the points are automatically kept parallel to each other. This ingenious instrument is manufactured by Kieffer, for whom this firm is sole agent in the United States. Weber & Co. announce that they are making great progress with their special colored water-proof drawing inks such as are used by draughtsmen. This firm is also selling agents for the S & H water proof black drawing ink, and a manufacturer and importer of artists' materials, draughtsmen's and engineers' supplies.

RECENT orders received by the Jewell Belting Co., Hartford, Conn., include some substantial purchases and a variety of sizes. The list for the month ending January 14 is as follows: 118 feet of 28 inch, four ply; 105½ feet of 62 inch, three ply; 105½ feet of 62 inch, three ply; 88½ feet of 62 inch, three ply; 88½ feet of 62 inch, three ply; 110 feet of 34 inch, three ply, and the following quantities of double ply: 117 feet of 42 inch, 67 feet of 30 inch, 115 feet of 24 inch, 58 feet of 24 inch, 92 feet of 20 inch, 99 feet of 26 inch, 90 feet of 36 inch, 113 feet of 40 inch, 136 feet of 36 inch, 130 feet of 24 inch and 86 feet of 26 inch.

THE plant of the Euckeye Manufacturing Co. has been removed from Union City, Ind., to Anderson in the same State. Greater facilities, more room and better conveniences have thus been secured, and the capacity of the plant is doubled. The company is loaded up with orders in every department. Among its products which are receiving this popularity despite bad times are the company's carriage specialties, including ironed poles, Osborne's patent knocked-down shaft, buggy neck, yokes, etc., and its hardware specialties, including the "Boss" two speed ship-builders' and carpenters' boring machine, improved gun post hole auger, "H. W." door-latch, etc. The company also builds the "Lambert" gas line engine, the "Cloyd" excelsior machine and other machinery.

STEAM TOWING machines, as built by the American Ship Windlass Co. of Providence, R. I., are being widely adopted. Many well known ship-owners on the great lakes are endorsing this device. A late order received by the company was from Capt. James Davidson, of West Bay City, Mich., to be used on a tow-barge now being built. Captain Davidson is credited to be one of the shrewdest and most practical men on the lakes. Mr. John Corrigan, of Cleveland, managing owner of the Aurora, says that the machine will pay for itself every two years, and that the saving in hawsers is only one of the many advantages which it has. Mr. Corrigan says also that the officers of the Aurora report to him that one of the greatest advantages of the machine is in the readiness with which it enables them to make turns in places like the Sault river, with none of the annoyances, expense and delays caused by the breakage of tow lines and the tow going aground.

A MAGNIFICENT apartment has been designed by E. Hill Turnock, one of Chicago's foremost architects, for B. Edwards. It is to be known as the Lincoln Park Palace Apartment. The building will have nine floors and the basement will be finished in white oak with Georgia marble. The finish of the other floors will be as follows: First floor in mahogany and onyx; second, cherry and Tennessee marble; third, red birch and Maryland marble; fourth, birch and light Tennessee marble; fifth, birch and serpentine; sixth, quarter sawed oak and Italian marble; seventh, red oak and Siena marble; eighth, white oak and African marble. Each floor will have six large apartments of six, seven and eight spacious, light and airy and well ventilated rooms. The entire plan of the structure shows the architect's versatile acquaintance with the most approved ideas in modern construction. He combines elegance and solidity, and provides every facility to promote the comfort and ease of those who will occupy the structure.

TRADE LITERATURE.

A CALENDAR issued by the Ingersoll-Setgeant Drill Co., of New York city, shows types of the company's tunneling, quarrying, mining and air-compressing machinery at work.

EQUIPMENTS of all kinds necessary to building, repairing and maintaining roads, according to the best practice, are illustrated in the catalogue issued by the American Road Machine Co., of Kennett Square, Pa. For the past sixteen years this company's business has been to supply machinery to the road-making public. With such an experience it is quite capable to speak with

authority on this subject and requirements of road building. It does this in an interesting way, and explains the many uses and value of the "Champion" road machinery which it produces.

AN improved asphalt car roofing, the "Defiance," is described in a catalogue sent out by the A. E. Finley Manufacturing Co., 39 41 Cortlandt street, New York city. This concern manufactures asphalt products for all railway purposes. No coal tar or petroleum residuum are used in their manufacture.

HAND-TURRET screw cutting lathes and planers of new and improved types are displayed in a pamphlet issued by the Draper Machine Tool Co., of Worcester, Mass. This company is the successor to the Lathe & Morse Tool Co., which was established many years in the manufacture of machinists' tools, and became widely known. The improvements in the products include making the lathes heavier and stiffer not only in the head bearings, but in the rests, beds, feed works and tails. The simplicity and absence of clumsiness in handling have been preserved.

Iron Markets.

CINCINNATI, February 23.

The very decided proof of the confidence of the world in the credit and resources of America which was afforded by the subscription to the syndicate offer of bonds, has had the effect to change general sentiment to a much more hopeful tone than was prevalent before. The banks report a better feeling in nearly all classes of trade and improved demand for money. Rates for money at the leading centres have also hardened perceptibly. There is an improved demand for iron, and some large transactions are now pending. At the same time there is not the general improvement that the circumstances might seem to warrant. It would certainly seem as if any consumer who has a reasonable prospect for work ahead would be justified in buying for deliveries as far forward as possible on the present extreme low basis of prices, but the course of the market has been downward continuously for so many years that it will take the substantial evidence of an actually advancing market to persuade many that the bottom has been reached. We look for a steadily increased demand, and there is good reason to believe that it will reach a magnitude sufficient to take up the surplus of stocks and create a turn upward in the market.

On the other side of the picture, however, are the weekly exhibits of decreased railroad earnings, the extreme slowness of all classes of railroad work to materialize into orders, the dullness of general jobbing foundries, agricultural works and some other specialties, and the knowledge that there can be no permanent settlement of the currency problem until a new Congress convenes.

There is no change in values of either Northern or Southern irons, but minimum prices can no longer be shaded, and the tendency is certainly no longer downward.

We quote for cash f. o. b. Cincinnati:

Southern coke No. 1 foundry.....	\$ 9 75@10 50
South. coke No. 2 foundry and No. 1 soft.....	9 25@9 50
Hanging Rock coke No. 1.....	12 00@12 50
Hanging Rock charcoal No. 1.....	16 00@17 50
Tennessee charcoal No. 1.....	14 00@14 50
Jackson county stone coal No. 1.....	14 50@15 00
Southern coke gray forge.....	8 00@8 50
Southern coke, mottled.....	8 25@8 75
Standard Alabama car-wheel.....	15 75@16 50
Tennessee car-wheel.....	15 50@16 75
Lake Superior car-wheel.....	14 00@14 50

BOSTON, February 23

A better feeling seems to prevail in this section in the pig-iron business.

The furnaces are a little stiffer in their ideas than they were a few weeks ago, one of our Western connections having recently refused to accept several offers that they would gladly have taken in a month or six weeks before. This feeling also holds good with some of the Southern furnaces that have lately been fishing deep for orders, they having advanced their ideas in regard to prices, and are holding firmly to ruling values.

Some of the larger buyers have recently placed orders, and others are in the market for round lots to cover their future requirements. This seems to indicate that they realize that the bottom has been reached,

and are anxious to secure stock before prices materially advance.

We quote for cash delivered Boston:

Alabama No. 1 foundry.....	\$12 00@12 25
Alabama No. 2 foundry and No. 1 soft.....	11 50@11 75
Alabama No. 3 foundry and No. 2 soft.....	11 00@11 25
Alabama No. C. C. car-wheel.....	18 50@19 00
Strong L. S. coke iron No. 1 foundry.....	13 75@14 00
Lake Superior charcoal car-wheel.....	16 50@17 00
American-Scotch (Northern) No. 1.....	13 75@14 00
Jackson county silvery No. 1.....	17 00@17 50

NEW YORK, February 23.

The principal feature of Eastern markets is the very large current demand for cast-iron pipe. The East River Gas Co. is in the market for 6000 tons. Boston is inquiring prices for 9000 tons. Jersey City is coming up for a large tonnage. Washington is asking bids. Philadelphia will soon place contracts, and numerous smaller places are making up estimates.

It is stated by pipemen that the total tonnage on which bids are now being made up is 50,000 to 60,000 tons. When all this business is placed and the pipe works place their orders for pig iron the market will feel it.

We quote for cash f. o. b. New York:

No. 1 standard Southern.....	\$11 75@12 00
Southern coke No. 2.....	10 75@11 00
No. 1 standard soft.....	10 75@11 00
No. 1 foundry lake ore coke iron.....	13 00@13 25
No. 2 foundry lake ore coke iron.....	12 25@12 50
Lake Superior C. C. W.....	15 50@15 75
Southern C. C. C. W.....	17 75@18 00

We quote for cash f. o. b. St. Louis:

Southern coke No. 1.....	\$10 25@10 50
Southern coke No. 2.....	9 75@10 00
Southern coke No. 3.....	9 25@9 50
Southern gray forge.....	9 00@9 25
Southern charcoal No. 1.....	14 00@14 50
Missouri charcoal No. 1.....	12 50@13 00
Ohio softeners.....	14 00@14 50
Lake Superior car-wheel.....	15 50@16 00
Southern car-wheel.....	16 00@16 50
Genuine Connellsville coke.....	4 40
West Virginia coke.....	4 40

We quote for cash f. o. b. Philadelphia:

Standard Alabama No. 1 X.....	\$11 75@12 00
Standard Alabama No. 2 X.....	10 75@11 00
Strong lake ore coke iron No. 1 X.....	13 00@13 25
Strong lake ore coke iron No. 2 X.....	12 25@12 50
Lake Superior charcoal.....	15 50@15 75
Standard Alabama C. C. W.....	17 75@18 00

We quote for cash f. o. b. Buffalo:

No. 1 foundry strong coke iron Lake Superior ore.....	\$ —@11 00
No. 2 foundry strong coke iron Lake Superior ore.....	—@10 50
Ohio strong softener No. 1.....	—@11 10
Ohio strong softener No. 2.....	—@10 60
Jackson county silvery No. 1.....	—@15 50
Lake Superior charcoal.....	—@13 75
Southern soft No. 1.....	—@11 00
Southern soft No. 2.....	—@10 75
Hanging Rock charcoal.....	—@18 50

ROGERS, BROWN & CO

Activity in Arkansas.

GILLET, ARK., February 23.

Editor Manufacturers' Record:

Indications all promise considerable activity in this section of country in the near future. The large band-saw mill of Wisdom & Canon, employing 100 men, is in full operation. This firm has 6,000,000 feet of logs—cypress, ash, cottonwood and oak—ready to float to their mill tramway. The prospects for house-building are good, and a hundred or more new houses will probably be erected this summer.

A prominent fruit-grower of Michigan has been engaged to take charge of the fruit interests along the line of the Stuttgart & Arkansas River Railroad. He will plant out for the company and grow a model orchard and fruit farm. This and market gardening is to be greatly stimulated by Vice-President Leslie, who was a noted fruit-grower of Illinois fifteen years ago, and has great faith in the fruit-growing possibilities of this region. Many farmers and fruit-growers have been settling near here all fall and winter.

Winter Tours to Texas and Mexico.

The easiest and best way to reach the winter tourist resorts of Texas and Mexico is via the International Route (International & Great Northern Railroad), which forms a portion of the short line from Chicago, St. Louis and Memphis to Austin, San Antonio, Houston, Galveston, Laredo and principal Mexican points. Through Pullman sleepers, without change, daily between Chicago, St. Louis and Austin, San Antonio and Laredo, St. Louis and Houston and Galveston, Memphis and Austin and San Antonio via Cotton Belt Route and Tyler, and between Dallas and Austin and San Antonio via Hearne. Call on nearest ticket agent for rates, time-tables and full information, or for printed matter descriptive of Texas and Mexico, address D. J. Price, assistant general passenger agent, Palestine, Texas.

TABLE OF CONTENTS.

EDITORIAL	Page.
How Northern Millmen Will Go South.....	65
Heads I Win; Tails You Lose.....	65
Harper's Magazine on the South.....	65
Saying One Thing, Doing the Other.....	66
Mexico as a Market for Southern Goods.....	66
A Newspaper Educator.....	66
Southern Energy and Northern Capital.....	67
The Need of Technical Education at the South.....	67
Wants Information About Atlanta Exposition.....	67
A New Cotton Bale (I llus.).....	68
Dallas on the Move.....	69
Centre of Tin Industries.....	69
RAILROAD NEWS:	
Another Combination.....	69
Two Important Projects.....	69
Earnings of Southern Roads.....	69
Future of the Georgia Central.....	69
Another Railroad Suit.....	69
A 230 Mile Road.....	69
Southern Railroad Notes.....	69
FINANCIAL NEWS:	
A London View on Finances.....	70
New Financial Institutions.....	70
New Bond and Stock Issues.....	70
Interest and Dividends.....	70
Financial Notes.....	70
Now Is the Time to Advertise.....	70
TEXTILES:	
American Cotton and Russian Socialism.....	71
Cotton Manufacturers in the South.....	71
Textile Notes.....	71
COTTONSEED OIL:	
Cottonseed Meal for Human Beings.....	71
The Markets for Cottonseed Products.....	71
LUMBER:	
Lumber Market Reviews:	
Baltimore.....	72
Charleston.....	72
Savannah.....	72
Pensacola.....	72
Mobile.....	72
Beaumont.....	72
Orange.....	72
Southern Lumber Notes.....	72
PHOSPHATES:	
Phosphate Markets.....	73
Phosphate and Fertilizer Notes.....	73
An Important Carolina Enterprise.....	73
Texas Granite Wins.....	73
MECHANICAL:	
The Ewbank Street Car Fender (Illus.).....	74
Success of Emery Millstones.....	74
No. 1 Logging Car (Illus.).....	74
Mad in Construction Machinery (Illus.).....	75
Improved Wire Goods (Illus.).....	75
A New "Remington" (Illus.).....	75
CONSTRUCTION DEPARTMENT:	
New Enterprises.....	76
Building Notes.....	77
Railroad Construction.....	77
Machinery Wanted.....	78
Trade Notes.....	78
Trade Literature.....	79
Iron Markets.....	79
Activity in Arkansas.....	79

THE proper protection of street crossings is a problem of far-reaching consequence to railway companies. The most vigilant flagmen have failed to prevent serious accidents, and where human action fails there is a recourse to mechanical action. The railway-crossing gate has provided a capable solution of this problem. After the severest tests the "Dayton" gate has been demonstrated to perform the desired service of protecting life and property. This device has many points of mechanical excellence, and it is daily illustrating that it is a practical success on many leading rail roads. A catalogue just issued by the Craig-Reynolds Foundry Co., Dayton, Ohio, manufacturer of this gate describes it in detail.

An Attractive Southern Property.

The advertiser has for sale one of the most attractive properties in the South. It comprises 1300 acres, 450 being in cultivation and 700 in virgin pine forest. It has exceptionally good railroad facilities. The land will produce large crops of corn, cotton, tobacco and all ordinary crops, and is particularly well-suited to trucking and fruit-growing. In the centre of the property there is a beautiful clear lake covering 150 acres, which abounds in fish and is a favorite haunt of ducks and other waterfowl. It is admirably adapted to boating, bathing, etc. The land surrounding the lake is entirely free from swamp and marsh, and affords beautiful sites for residences. The forest and fields abound in all kinds of game. As a hunting preserve this place cannot be surpassed. It could be made one of the most delightful homes in the South. For a fine resort hotel no better place can be found in America. The locality is pre-eminently healthy. Price \$10,000. For particulars address B. S. C., care MANUFACTURERS' RECORD.

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